

https://dspace.org/

Proximal and Distal Antecedents of Behaviour Change Maintenance

Ameyibor, Leeford Edem Kojo

2022
University of the Witwatersrand, Johannesburg
https://hdl.handle.net/10539/40073
Ameyibor, Leeford Edem Kojo. (2022). Proximal and Distal Antecedents of Behaviour Change Maintenance [PhD thesis, University of the Witwatersrand, Johannesburg]. WireDSpace.https://hdl.handle.net/10539/40073

Downloaded from a DSpace repository. https://dspace.org/

TITLE:

PROXIMAL AND DISTAL ANTECEDENTS OF BEHAVIOUR CHANGE MAINTENANCE

Candidate: Leeford Edem Kojo Ameyibor

1766515

Supervisor: Dr. Yvonne Kabeya Saini,

Wits Business School, University of Witwatersrand, Johannesburg, South Africa



Proximal and Distal Antecedents of Behaviour Change Maintenance

Leeford Edem Kojo Ameyibor

1766515

This thesis is presented in partial fulfillment of the Doctor of Philosophy in Management degree in the Faculty of Commerce, Law, and Management, University of the Witwatersrand.

2022

Declaration

I hereby declare that this thesis is my unaided work except where due recognition has been given. It is submitted for the degree of Doctor of Philosophy at the Wits Business School at the University of the Witwatersrand Johannesburg in South Africa. It has not been submitted before for any other degree at any other university. I have also read, understood, and complied with this study's Human Research Ethics Committee (HREC) (non-medical) risk requirements and have obtained ethics clearance accordingly.



.....

Leeford Edem Kojo Ameyibor

Dedication

This thesis is dedicated to my son Kuuku, who brought me so much joy. May you grow in leaps and bounds. To my father, Walter, whose enduring spirit to conquer cancer is a source of strength and motivation to me to persevere against all odds. To my mother, my solid backbone, my shelter, and my prayer warrior, God bless you immensely. Finally, to my wife Patience for her persistent patience; God richly blesses you.

Acknowledgment

I am eternally grateful to the Almighty God, my sustainer and tower of refuge, for bringing me this far and constantly reminding me of his steadfast and unconditional love and mercy. I am also grateful to my immediate family for their tolerance, love, support, and encouragement.

, I am forever grateful to my supervisor and mentor, Dr. Yvonne Kabeya Saini, for agreeing to supervise my work. I won't forget the motherly love you showed me when I was under the weather; you, indeed, were interested in my personal and academic welfare. There were times when the project stalled due to funding issues, and then COVID-19 delayed the work for a year. But through it all, you were there with your advice and strategies for overcoming these challenges. Cant forget the numerous research agency contacts you send to my mail to try them out. I am forever grateful that you found time and interest in my project, even in your grief. May the Lord replace everything you have lost in a 1000 fold.

I am also indebted to Professor Imhotep Alagidede for his wise counsel, frequent visits, and the opportunity to distress by hosting me in his home for Braai. To my roommate, colleague, and friend, Dr. Alexander Preko, for his advice and encouragement, may the good Lord reward all of you abundantly.

Finally, I say God bless you immensely to the entire faculty and staff at the Wits Business School, especially to Mmabatho Leeuw and Jennifer Mgolodela for their patience, service, and dedication to duty.

Abstract

The study sought to determine the proximal and distal factors of behaviour change maintenance among an understudied population of alcohol quitters. It also sought to determine the predictors of sobriety longevity and identify psychographic clusters within alcohol quit maintenance behaviour. This study was motivated by the lack of attention on this population and the high relapse rate among alcohol quitters. A quantitative method adopted a cross-sectional data collection time frame with a purposive sampling technique, which saw a total sample size of 501 former alcohol consumers participating in the study through a professional data collection firm. After data cleaning and robustness checks, the main objective was executed using a structural equation modeling technique, the second objective was answered using a logit analysis, and the last objective was addressed using k-means clustering and optimal scaling techniques using the Activity, Interest, and Opinion (AIO) framework. Findings from the study show that six (6) proximal factors, social and situational influence, had an indirect positive effect on Behaviour Change Maintenance (BCM), and change initiation had a significant positive effect on BCM. Both self-regulation and self-efficacy had a significant positive effect on BCM. BCM had a significant positive effect on the ease of change adaptation. Regarding moderation and mediation, the longevity of sobriety fully moderated the relationship between change initiation and BCM, while change initiation partially mediated the proximal and distal factors' relationships with BCM. Two (2) distal factors; pricing had a direct positive effect on change initiation, and placements also had a significant positive effect. The results of the second objective identified the married, former alcoholics, and black Africans as more likely to achieve longevity of sobriety, while the last objective found ten (10) clusters in alcohol quit behaviour maintenance; people socialised with on a regular basis had: "unique and authentic" and "good

looking and honest"; relationship interest had: "long term and growth potential relationship" and "spending time with someone with shared interest"; ingredients of good relationship had: "physicality, spirituality and intellectuality" and "emotionality"; party activities had: "caring for friends and attention seeking" and "having fun with caution"; and outing dressing had: "readiness for a photo and compliments" and "neatly dressed." Based on the findings, the study recommends that practitioners in the behaviour change discipline should use the proximal factors as a basis for triggering change initiation, segment, target, and position the BCM product using these Activity-Interest clusters identified in this study and finally encourage the strong social network ties among audience whiles using situational influence nudges to reinforce abstinence. Regarding the theoretical implications of the findings, the study shows how the ecological system theory can be used to predict BCM through the stages of change model. Change initiation does not play a total mediation role between proximal and distal factors' relationship with BCM. Ease of change adaptation is a reliable outcome of BCM, contributing to the extension of the stages of change model. Policy makers are equally recommended to implement the legislative framework on alcohol marketing activities regulation to reduce the impact of alcohol marketing activities on BCM.

Keywords: *Behaviour change maintenance, Proximal, and distal antecedents, De-marketing alcohol, Sobriety longevity, psychographic segmentation.*

Table of Contents

Declaration i
Dedication ii
Acknowledgment iii
List of Acronyms xi
List of Figures xii
List of Tables xiii
List of Appendices xiii
1.0 CHAPTER ONE 1
1.1 Introduction 1
1.2 Background 1
1.3 Purpose of the study 6
1.4 Significance of the study ..... **Error! Bookmark not defined.**
1.5 Problem statement 7
1.6 Objectives 11
2.0 CHAPTER TWO 14
2.1 Literature Review 14
2.2 Introduction 14
2.3 The concept of marketing 14
2.4 Social marketing 20
2.5 Conceptualisation of Behaviour Change Maintenance 27
2.5.1 Behaviour change maintenance versus behaviour change initiation 27
2.6 Study Context: South Africa 31
2.6.1 Demographic Profile 31
2.6.2 Economic Profile 31
2.6.3 Alcohol Industry Profile 32
2.6.4 Alcohol Consumption, marketing, and regulations 34
2.6.5 Alcohol marketing and regulation 38
2.7 Theoretical Framework 40
2.7.1 Ecological system theory 40

2.8 Transtheoretical model of health behaviour change 43
2.9 Process of Change 50
2.10 Key assumptions of the stages of change model 55
2.11 Demographic factors and alcohol sobriety 56
2.11.1 Age 56
2.11.2 Gender 57
2.11. 3 Education 59
2.11.4 Income 59
2.11.5 Employment status 61
2.11.6 Marital status 62
2.11.7 Social consumers, alcoholics and longevity of sobriety 63
2.11.8 Ethnicity and sobriety of longevity 64
2.12 Lifestyle segments in health behaviour change 65
2.13 Market actor's influence on alcohol policy 68
2.13.1 The producers 69
2.13.2 Distributors 69
2.13.3 Media 70
2.13.4 Scientific community and CSOs 71
2.14 Demarketing alcohol consumption 73
2.15 Systemic structural support for alcohol quitters 75
2.17 Hypotheses development 78
2.17.1 Self-Concerns and change initiation 78
2.17.2 Health Concerns and change initiation 79
2.17.3 Social influence and change initiation 80
2.17.4 Situational influence and change initiation 81
2.17.5 Alcohol Product Branding and change initiation 82
2.17.6 Alcohol Pricing and change initiation 83
2.17.7 Alcohol Promotions and change initiation 84
2.17.8 Alcohol Placements and change initiation 85
2.17.9 Change initiation and behaviour change maintenance 86
2.17.10 Mediating role of change initiation in the relationship of change motives, marketing functions, and behaviour change maintenance 87

2.17.11 Self-regulation and behaviour change maintenance 88
2.17.12 Moderating role of sobriety longevity in the relationship between change initiation and behaviour change maintenance 89
2.17.13 Self-efficacy and bahaviour change maintenance 91
2.17.14 Behaviour change maintenance and ease of change adaptation as an outcome 92
2.18 Proximal and Distal constructs choice justification 94
3.0 CHAPTER THREE 97
3.1 Methodology and Design 97
3.2 Introduction 97
3.3 Research Philosophies 97
3.4 Quantitative research strategy 100
3.5 Research design 100
3.6 Population and sampling method 100
3.7 Data collection and analysis 101
3.8 Operational definitions of constructs 103
3.9 Measures 105
3.10 Ethical consideration 108
4.0 CHAPTER FOUR 109
4.1 Presentation of Results 109
4.2 Introduction 109
4.3 Data Cleaning and Normality Test 109
4.4 Demographic Information 113
4.5 Confirmatory Factor Analysis (CFA) 117
4.5.1 Assessment of Model Fit Indices 118
4.5.2 Reliability and Convergent Validity 123
4.5.3 Discriminant Validity 132
4.5.4 Description Statistics of the latent variables 135
4.5.5 Correlation Matrix 138
4.6 Objective 1 141
4.6.1 SEM Analysis 141
4.6.2 Hypotheses Results 141
The hypothesis results are presented based on the hypothesised relationships 141

4.6.3 Structural Equation Modelling and Hypotheses testing 152
4.7 Objective 2 156
4.7.1 Logit analysis 156
4.8 Objective 3 158
4.8.1 Cluster analysis, optimal scaling, and descriptive analysis 158
5.0 CHAPTER FIVE 168
5.1 Discussion of Results 168
5.2 Introduction 168
5.3 Implications of results 168
5.3.1 Objective 1: discussion of the tested hypothesis 168
5.3.1.1 Intrinsic change motives 168
5.3.1.2 Extrinsic change motives 171
5.3.2.1 Distal factors 172
5.3.2.2 Marketing functions 172
5.3.2.3 Mediation test 177
5.4 Objective 2 182
5.4.1 Demographic determinants of the longevity of sobriety 182
5.4.1.1 Marital status 182
5.4.1.2 Former heavy social consumers, former alcoholics, and sobriety longevity 183
5.4.1.3 Ethnicity and sobriety longevity 184
5.5 Objective 3 185
5.5.1 Psychographic clusters in a change maintenance behaviour 185
5.5.1.1 Socialisation associations 185
5.5.1.2 Relationship interest 186
5.5.1.3 Characteristics of a working relationship 187
5.5.1.4 Party activities 188
5.5.1.5 Outing dressing 189
6.0 CHAPTER SIX 190
6.1 Conclusions and recommendations 190
6.2 Introduction 190
6.3 Conclusions 190
6.3.1 Objective 1 191

6.3.2 Objective 2 197
6.3.3 Objective 3 197
6.4 Delimitations of the research 198
6.5 Recommendations 198
6.5.1 Implications for practice 198
6.5.2 Implications for theory 200
6.5.3 Implications for policy 201
6.5.4 Implications for future research 201
References 203
Appendices 278

List of Acronyms

AIDS: Acquired Immune Deficiency Syndrome

APC: Alcohol Per Capita

A.A.: Alcohol Anonymous

AIO: Activity Interest Opinions

CSO: Civil Society Organisation

CSR: Corporate Social Responsibility

CFI: Comparitive Fit Indices

C.R.: Composite Reliability

DALY: Disability Adjusted Life Years

GDP: Gross Domestic Product

HIV: Human Immunodeficiency Virus

HED: Heavy Episodic Drinking

IDV: Individualism vs Collectivism

LoV: List of Values

NDSD: South African Department of Social Development

NDTI: National Department of Trade and Industry

NGO: Non-Governmental Organisation

PR: Public Relations

RMSEA: Root Mean Square Error of Approximation

SEM: Structural Equation Modeling

SAB: South African Breweries

SACENDU: South Africa Community Epidemiology Network on Drug Use

SADC: South Africa Development Community

SANCA: South Africa National Council on Alcoholism and Drug Dependence

TLI: Tucker Lewis Index

URICA: University of Rhode Island Change Assessment

List of Figures

Fig 1: Per capita consumption of absolute alcohol per category.....36

Fig 2: The stages of stage model.....59

Fig 3: Conceptual framework…….....94

Fig 4: Measurement model of change motives.....118

Fig 5: Measurement model for marketing functions….....119

Fig 6: Measurement model for self-regulation.....120

Fig 7: Measurement model for self-efficacy.....120

Fig 8: Measurement model for change initiation.....121

Fig 9: Measurement model for behaviour change maintenance….....121

Fig 10: Measurement model for ease of change adaptation.....122

Fig 11: The moderating effect of longevity on the relationship between change initiation and behaviour change maintenance.....145

Fig 12: The structural paths.....151

Fig 13: People socialised with on regular basis….....157

Fig 14: Discrimination Measures-People socialised with on regular basis..... 158

Fig 15: Relationship interest.....159

Fig 16: Discrimination measures-relationship interest.....160

Fig 17: Ingredients of a good relationship.....160

Fig 18: Discrimination measures-ingredients of a good relationship.....161

Fig 19: Party activities.....162

Fig 20: Discrimination measures-party activities..... 163

Fig 21: Outing dressing.....164

Fig 22: Discrimination measures-outing dressing.....165

List of Tables

Table 1: Assessment of the normality distribution of items.....109
Table 2: Summary of audience demographic information.....113
Table 3: Alcohol consumption typology by provinces.....115
Table 4: Sobriety longevity by provinces.....116
Table 5: Items measurement validity and reliability results 123
Table 6: Discriminant validity Fornell-Larcker criterion.....132
Table 7: Descriptive statistics.....134
Table 8: Correlation matrix.....138
Table 9: Mediation test.....142
Table 10: Summary of hypotheses assessment support..... 146
Table 11: Structural path showing hypothesised test results..... 152
Table 12: Logit analysis parameter estimates..... 154

List of Appendices

Appendix 1: Research questionnaire.....272
Appendix 2: Ethical clearance certificate.....298
Appendix 3: Normality Diagnostics.....300
Appendix 4: Empirical Literature Review.....302

1.0 CHAPTER ONE

1.1 Introduction

This chapter presents an introduction to the subject matter of behaviour change maintenance through a coherent description of the background of the study, context, purpose, significance, problem statement, and objectives.

1.2 Background

Social marketing extant literature is repleted with research on alcohol consumption focusing on behaviour change initiation and not on the audience on quit behaviour maintenance. The lack of research on quit audiences and how they are affected by proximal and distal factors is primarily driven by social marketing over-concentration on behaviour change initiation and less on maintenance, thus creating an understudied population of alcohol quitters (Rothman, 2000). When social marketing campaigns end at behaviour change initiation realisation, the audience is left to sustain the gains with pressures from the ecological system in which the quitter resides (Lau & Ng., 2014). With the increase in relapse rates, practitioners and scholars continuously seek answers within the ecosystem where both proximal and distal factors affect the quitters' behaviour (Jackson et al., 2014). For example, distal factors such as the marketing activities of alcohol, ranging from pricing, distribution, and product promotions, are done regularly, seeking the attention of quitters (Brennan et al., 2016). Quitters are also challenged by their self-regulation, efficacy, situational, social, health, and self-concerns in behaviour change maintenance routine activities (Berkman et al., 2017). These proximal factors often conflict and

sometimes reduce their potency due to other distal factors, such as marketing activities and regulatory frameworks (Brennan et al., 2016).

At the root of this noticeable population gap of alcohol quitters is the case of the rising consumption of alcohol globally. Excessive alcohol consumption as a "wicked problem" has a global footprint in its effects on public health infrastructure (Niskanen et al., 2021). Alcohol consumption patterns have seen a relatively incremental surge globally due to macro marketing factors such as alcohol marketing and promotional activities (Guillou-Landsat et al., 2020). Alcohol per capita consumption patterns (APC), both recorded and unrecorded, have generally reported a significant rise in consumption rate per capita in most World Health Organisation (WHO) member countries (World Health Organisation, 2018). The latest WHO available data shows total APC in the world's population aged 15 years or older culminates to the consumption of 6.4 liters of pure alcohol per year with fewer exceptions in countries in the African regions (e.g., Nigeria), the Americas (e.g., Uruguay), the European regions and Australia and New Zealand in the western pacific regions which has 10 liters or more per capita consumption (WHO, 2018). Globally, alcohol consumers consume 32.8gram alcohol per day (15.1 litres of alcohol annually), which culminates to 40 grams per day or 20% higher in the African region and estimated 20% lower (26.3 g/day) in the South-East Asia region (WHO, 2018)

The WHO is, however, quick to point out that there are significant variations in alcohol consumption per capita across WHO regions and member states. For example, relatively high per capita consumption has been found in high-income countries such as those in the WHO regions of the Americas, the western pacific, and some African countries (WHO, 2018). Trends in alcohol consumption among drinkers show a different picture from what prevails in the total

population. As the percentage of drinkers decreased worldwide, the total consumption per capita within the population increased slightly due to increases in the Western Pacific region (China) and the South East Asia region (India). It's worth noting that total consumption among drinkers has increased in almost all the regions except the WHO European region since 2000. This evidence implies that drinkers, although relatively minor to the entire population, have increased per capita alcohol consumption globally (WHO, 2018).

Alcohol consumption in Africa follows a similar pattern to the global trend. The continent continues to register a steady increase in consumption by 15+ years of the population. Between 2000 and 2005, the per capita consumption increased by 0.1 litre, thus from 6.2 to 6.3 litres, and remained at a steady rate of 6.3 litres from 2005 to 2010 (WHO, 2018). Despite this steady increase, drinkers within the population within a spate of 16 years have been observed to significantly increase their drinking rate from 14.5 litres in 2000 to 18.4 litres of pure alcohol in 2016, thus representing a 4 litre increment in per capita consumption (WHO, 2018). Another worrying feature of alcohol consumption pattern known as heavy episodic drinking (HED) which involves the consumption of 60 or more grams of pure alcohol on at least one single occasion or per month) has been shown to have a prevalence rate of 50.2% and a total per capita consumption of 18.4 litres among drinkers 15+ years (WHO, 2018).

Alcohol consumption global projections up to 2025 show increased consumption across middle-income countries thus from 7.0 litres in 2016 to 7.6 litres in 2025 for upper middle-income countries, and 4.7 litres to 5.9 litres for lower-middle-income countries representing 0.6 and 1.2 litres change in consumption per capita respectively (WHO, 2018). The health implications for this present and future outlook on alcohol consumption patterns pose numerous

challenges for public health managers and stress on local economies. In 2016, for example, the harmful effects of alcohol resulted in some 3 million deaths worldwide, representing 5.3% of the global deaths and 132.6 million disability-adjusted life years (DALYs), signifying 5.1% of all DALYs in that year (Matzopoulos et al., 2014). Meanwhile, the WHO Africa region has been observed to experience the highest age-standardised alcohol-attributable disease burden, consequently deepening the vulnerability of the already fragile health system in most African states (Ferreira-Borges et al., 2016).

In response to this seemingly unending alcohol consumption with its associated public health implications, social marketing as a discipline has been used and continuously used as a formal strategic framework for guiding behaviour change process (Chichirez & Purcărea 2018). Indeed, the goal of every social marketing intervention campaign in alcohol consumption quit behaviour is to succeed in completely altering drinkers' habits in ways to make them complete abstainers (Janssen et al., 2013). Unfortunately, abstention has been attributed to the lack of economical means to purchase alcohol rather than the pure desire to willingly quit consumption, implying that poor people are likelier to abstain than rich people (Probst et al., 2017). Evidence shows a steady growth in the population of alcohol abstainers who were previously consumers who quit consumption not primarily due to inability to afford alcohol but based on circumstances such as life-threatening illness, job security, relationship stability, and other life-changing events (see; Fat et al., 2018; Mugavin et al., 2020; Probst et al., 2017; Törrönen et al., 2019)

This unique population of former alcohol consumers can help social marketers better appreciate the issue of behaviour change maintenance. After all, social marketing interventions that target behaviour changes such as alcohol consumption expects their audience to stay within the status of "changed behaviour" and this objective is heavily reliant on the ability of the

individuals involved and how their external environment affects their efforts to maintain the changed behaviour. As Akbar et al. (2021) observed, while individuals involved in social marketing behaviour change processes have help in the form of experts guiding them through the process, the same individuals at the maintenance stage are often lonely to figure it out themselves. This phenomenon is counterproductive to the objectives of social marketing hence the need to pay attention to this population to appreciate personal and environmental factors that count in helping abstainers or alcohol quitters to maintain changed behaviour. The outcome of such an inquiry would help social marketers, health practitioners, and policymakers appreciate micro and macro factors crucial to assisting quitters in sustaining their behaviour. This outcome also can reduce pressure on some developing economies' public health systems by reducing the number of alcohol-related health issues. In looking for answers to these research problems, the ecological system theory with the transtheoretical model of change provided the basis for the conceptual framework. A quantitative design with a cross-sectional time for data collection utilised structural equation modeling, logit analysis, and clustering to answer the research objectives.

1.3 Purpose of the study

This study addresses a significant population gap of alcohol quitters in the social marketing literature by estimating the proximal and distal factors influencing the audience in an alcohol quit behaviour situation (Seymour et al., 2010). This study, therefore, offers a significant shift in social marketing research on the formal change initiation studies to change maintenance, making a solid case for an equal focus on the audience on change maintenance to prevent relapse. This study also provides insights into the understudied phenomenon of behaviour change maintenance because those targeted audiences belong to a special population known as "quitters" struggle to maintain the changed behaviour. Despite the considerable investments in behaviour change intervention campaigns such as those sponsored by the South African government, most quitters find themselves back in the habit of alcohol consumption. Personal factors, such as the levels of individual self-efficacy, or other environmental factors, such as the successful marketing of alcohol products, may trigger this phenomenon. In managing and ensuring the sustainability of these social marketing intervention campaigns, an empirical insight into critical factors that affects alcohol quitters must be investigated to guide both practice and policy of managing the successful maintenance of changed behaviours. A successful outcome of a maintenance policy would have a tremendously positive effect on the public health budgets of emerging economies such as South Africa.

1.4 Problem statement

Relapse in substance abuse, such as alcohol, is a global phenomenon. Despite this growing phenomenon, research on understanding proximal and distal factors affecting alcohol quitters' ability to sustain behaviour change has been lacking. Current research shows different relapse rates ranging between 35% to 95% three months after treatment and 15% to 45% 24 months after treatment (Appiah et al., 2017; Cornelius et al., 2003; Herd & Borland, 2009; Smyth et al., 2010). This high relapse rate could suggest that existing social marketing interventions may have limitations in effectively promoting long- term behavioural sustainability in alcohol quitting (Reilly, 2016). Within South Africa, which is the context of this study, available statistics from the South African Community Epidemiology Network on Drug Use (SACENDU) collected from 75 rehabilitation centres and 10,936 in and outpatients show that 23% of patients admitted to abusing alcohol consumption (SACENDU report, 2017). At the general population level, alcohol is the most harmful and widespread drug abuse in South Africa. It contributes to 33% of deaths and disabilities after unsafe sex, ironically promoted mainly by alcohol consumption (Norman et al., 2007). In total, 36,840 deaths (6.1% of total mortality), 787749 years of life lost (7.4% of premature mortality), and 344331 years lived with disability (6.2% of total disability) were linked to alcohol consumption (Schneider et al., 2007). These cumulatively account for more than 1.1 million disability-adjusted life years (DALYs), translating to 7% of the total disease burden (Bradshaw et al., 2003).

Alcohol consumption-related injuries accounted for 41% of the national injuries, with the largest found in interpersonal violence and suicide (25%), and road traffic injuries accounted for 16% of DALYs. Yet, infectious diseases such as tuberculosis and HIV/AIDS accounted for 18% and 13%, respectively (Matzopoulos et al., 2014). The harmful effects of alcohol consumption in

South Africa present public health costs and social security implications for the South African economy. The South African public health system, which already accounts for 42% of the total health expenditure and treats 70-80% of the population, is estimated to spend R 249 to 280 billion annually, representing 10 to 12% of South Africa's Gross Domestic Product (GDP) (Trangenstein et al., 2018). Indeed, 55% of the national budget is allocated to alcohol substance abuse prevention and rehabilitation, translating to an amount of R 156.695 million budgeted annually, while 20% (R33.48 million) is allocated to care and support services to families affected by the harmful effects of alcohol consumption (Budlender, 2009; Truen et al., 2011)

Apart from the need to give more attention to reducing the harmful effects of alcohol consumption on public health and economies of emerging markets such as South Africa as per the basis shown by the foregone discussions, there is also an existing empirical gap within the social marketing literature which traditionally has behaviour change as its primary objective (Kwasnicka et al., 2016). In the extant social marketing literature, emphasis is placed on the need for social marketing campaign intervention programme to focus on all the strategies that help the audience to reach changed behaviour and less on behaviour change maintenance (Donovan, 2011). Indeed some scholars have reiterated the need to focus more research on behaviour change maintenance as justification for the budget on social marketing intervention campaigns to address the sustainability issues surrounding incessant relapse rates among the targeted audience.

The argument for focusing more on behaviour change maintenance opens up discussions on an often neglected segment of the alcohol consumption population known as "quitters" or former consumers, especially within the gradually growing population of quitters and abstainers (Rossow, 2020; Sreenivas et al., 2017). Former alcohol consumers present a unique opportunity to gain further insights into essential factors crucial to sustaining behavior

change (Cunningham et al., 2002). Despite this clear research opportunity, there is sadly a dearth of research concerning behaviour change maintenance scholarship (Gakidou, 2018; Rehm et al., 2008). Indeed, several scholars in recent times have called for a shift from micro-level behaviour change intentions predictive studies to include macro-level factors of behaviour change maintenance studies, such as how the external factors affect the maintenance of a changed behaviour (Brennan & Previte, 2016; Locke & Latham, 2002; Rundle-thiele et al., 2019)

Similarly, Seymour et al. (2010), working for the American Health Maintenance Consortium (HMC), observed the lack of studies on behaviour change maintenance and advocated for considerable attention to appreciate how behaviour change can be sustained. The focus on predictive and descriptive initiation change behaviour as observed by previous studies, is very useful at the formative stages for a baseline strategy in developing a rich, effective intervention strategy to bring about behaviour change and, therefore, must be seen as a means to an end, not an end in itself (Almestahiri et al., 2017; Donovan & Henley, 2010; Gordon et al., 2016). Scholars such as Kriznik et al.(2018) had earlier called for a total shift from concentration on intention to change to empirically determining underlying factors of both behaviour change and behaviour change maintenance as a strategic tool for effective intervention, whiles Brennan, Previte, and Fry (2016) called for a shift from the myopic view of social marketing on micro level behaviour change factors to meso and macro factors

There is also the issue of demographic factors and their effect on alcohol quitters' behaviour (Mugavin et al., 2020). The existing empirical literature in social marketing and other health-related behaviour literature shows many studies on the effects of demographics on alcohol consumption but not quitters' behaviour (see appendix 1). similarly, little is known about lifestyle influence on quitters and their maintenance behaviour even though other studies have

established empirical evidence on lifestyle segments in alcohol consumption behaviour (Kwasnicka et al., 2019).

1.5 Significance of the study

The study contributes to the social marketing discipline in three ways. Firstly, theoretical and empirical contribution; theoretically, the study contributes to the scarce but growing literature on behaviour change maintenance through the mediation and moderation test within the model that helps predict behaviour change maintenance with constructs extensions to behaviour change maintenance outcomes. Empirically provide fresh insights into important proximal and distal factors that determine health-related behaviour change maintenance.

Secondly, practical and managerial implications of this study include the provision of baseline or formative research information for social marketers planning intervention campaigns in designing effective intervention campaign strategies throughout the marketing planning process to accurately create an effective, realistic product (behaviour to influence for a change), pricing (right incentives and opportunity cost), distributions (where to get help?) and promotion (consistent and compelling awareness messages to change mindsets). Because social marketers expect sustenance of the intervention, they can also be guided in deploying financial resources on strategic touch points with intended outcomes. For example, spend more money on designing messages that don't create an expectation of new behaviour whiles giving individuals incentives to help cope with change and enjoy new behaviours that guarantee maintenance. For health practitioners such as doctors, nurses, and psychologists managing several addiction cases, the findings of this study will provide them with the right factors to

focus on in keeping their rehabilitants from relapsing. This knowledge will save lives, time, and cost.

Lastly, the study has some **policy implications,** especially regarding a legal product such as alcohol and how it's pricing, product placements, distributions, and promotions affect the maintenance of a changed behaviour from drinking. For example, does the government's tax increment or reduction on alcoholic beverages influence the temptation of alcohol consumption among individuals trying to stay sober? The outcomes of this study will help policymakers gain insights into how policy ommissions and commissions on alcohol products promote or de-market drinking behaviours, especially for those in sobriety programs, therefore providing overall public health policy direction in the area of managing legally addictive products so that addiction doesn't continue to be a public health nightmare.

1.6 Objectives

In addressing both practical and empirical knowledge gaps in alcohol consumption quitters' behaviour, this research had the following objectives:

Objective 1: To estimate proximal and distal antecedents of behaviour change maintenance of alcohol consumption quitters. In doing so, the following hypothesis, as shown in fig 1, suffices:

- H1: Self-Concerns has a significant positive influence on change initiation
- H2: Health Concerns have a significant positive influence on change initiation
- H3: Social influence has a significant positive influence on change initiation
- H4: Situational influence has a significant positive influence on change initiation

- H5: Product Branding has a significant positive relationship with change initiation
- H6: Pricing has a significant positive relationship with change initiation
- H7: Promotions have a significant positive relationship with change initiation
- H8: Placements have a significant positive relationship with change initiation
- H9a: Change initiation has a significant positive relationship with behaviour change maintenance
- H9b: Change initiation mediates the relationship between change motives, marketing functions, and behaviour change maintenance
- H10: Self-regulation has a significant positive relationship with behaviour change maintenance
- H11: longevity of sobriety fully moderates the relationship between change initiation and behaviour change maintenance
- H12: Self-efficacy has a significant positive relationship with bahaviour change maintenance
- H13: Behaviour change maintenance has a significant positive influence on ease of change adaptation.

Objective 2: To determine the demographic predictors of sobriety longevity

Objective 3: To identify psychographic segments/clusters in alcohol consumption quitter's behaviour.

1.7 Definitions of key terms

Proximal in this study is defined as personal factors that promote or derail individuals' efforts to achieve sobriety. Personal factors include attributes such as self-efficacy and self-regulation.

Distal is defined as external factors within the environment that affect the promotion of the behaviour of continuous drinking or quitting drinking.

Living a sober lifestyle in this study is defined as alcohol abstention.

In summary, chapter one introduced the study by painting a global picture on alcohol consumption and then cascading it into a more African regional and the study context. A comprehensive problem statement highlighted the gaps in the existing social marketing literature the study intends to close. Lastly, the study's objectives start from the hypothesis testing the proximal and distal relationships with behaviour change maintenance, followed by demographic predictors of sobriety longevity and psychographic segments in quitter's behavior.

2.0 CHAPTER TWO

2.1 Literature Review

2.2 Introduction

This section discusses the general concept of marketing and current discourse in social marketing within the scope of the empirical literature and theoretical perspectives, which forms the basis for developing the conceptual framework on proximal and distal predictors of behaviour change maintenance. The theoretical framework underpinning this research is also discussed. It also provides conceptual insights into key concepts such as behaviour change maintenance and behaviour change, lifestyle market segmentation, demographic determinants of alcohol consumption quit behaviour, and market actors in an alcohol consumption country. Lastly, a basis for the hypothesised relationships is provided.

2.3 The concept of marketing

Historically, marketing began when artisans produced an excess of goods. These surplus goods needed to find their way to individuals who needed these products. The distributions transitioned from face-to-face (personal selling) to using intermediaries as the demand increased and the market grew (Burch et al., 1962). Recently, the philosophical underpinnings of marketing have seen it transition through different phases, such as production orientation, product orientation, sales orientation, and marketing orientation. Each stage served a unique purpose contextually, albeit with shortcomings (Mazer, 1947). The production orientation, for example, focused more on mass production to meet growing demands with little attention paid to customer preferences and sometimes quality; sales emphasized sales in the wake of stiff

competition that heralded excess supply and low demand; lastly, marketing concept paid attention to the need to survive and grow in a competitive market through innovation and market research with the customer at the center, thus developing a customer-centric marketing strategy.

The marketing orientation, therefore, represents contemporary marketing thinking because it redefined the marketing process. For example, Stanton (1971, p.660) defined the marketing process as *"a total system of interacting business activities designed to plan, price, promote and distribute want-satisfying products and services to present and potential customers."* Managerially, marketing becomes the only functional mechanism for structurally organizing inter-independent operational variables around the business enterprise to satisfy the customer. In the 1970s, marketing conceptualizing took a seminal turn when Bell and Emroy (1971) conceptualized the marketing concept philosophically as a consumer/social orientation. The social orientation differs from the profit orientation in two ways: firstly, the consumer is seen as the primary focus of all operational decisions, and the consumer's social well-being is placed above profit. There is a balancing act between customer satisfaction and the customer acquisition cost, thus satisfying both the producer and customer and bridging the gap between customer expectations and actual customer experience realistically. In Bell and Emory's (1971) conceptualization of the socially oriented marketing concept, they not only argue about the importance of immediate customer satisfaction but also about indirect customer satisfaction, which represents the intangible attributions to customer's sense of security in knowing that the consumption of the products is in unison with the knowledge of themselves, personal, emotional and physical needs and wants; and a state of equilibrium with the social-ecological environment. Meanwhile, the profit oriented philosophy emphasized only the direct satisfaction

of customer by placing the customer economic needs as the source and center of marketing operations.

Secondly, the social orientation of the marketing concept saw profit as a by-product of customer satisfaction (Čihovská, 2013). In other words, the intangibility of profit is gained as a result of achieving a positive customer-balanced mindset about the customer's estimation of joy and customer realized satisfaction, thus creating a concept of profit as value as perceived by the customer through goodwill (Sarantakos, 2005). Profit becomes the consumer's conceptual identification of the business entity's contribution towards personal and social well-being. Profit under the profit-oriented philosophy was a price differential between the producer's operational cost and sales revenue (Čihovská, 2013). However, despite the apparent differences between the profit-oriented and social-oriented marketing concept philosophies, the unification and integration of all business operations around the objectives of the business enterprise remained the same in meeting customer needs (Zharekhina & Kubacki, 2015).

Kotler (1972) and Kotler and Levy (1969) further broadened the marketing concept. At this stage, much inspiration has been drawn from the seminal work of Bell and Emroy (1970) to further advance the marketing concepts into areas of not-for-profit and public sector activities. Kotler and Levy (1969) concluded that marketing processes that lead to attaining business objectives are essential for all organizations, including not-for-profit organizations. Kotler (1972) defines this marketing focus as the "consciousness two" level of marketing. Consciousness two-level marketers do not see payments as the result of the marketing process; however, marketing planning and analysis are seen as essential to all organizations producing goods and services for consumption whether or not payment is required. Kotler (1972) further argues that consciousness two-level marketing is for all government and private organizations, such as government

agencies or educational institutions providing services and products for the consuming public. Kotler and Zaltman (1971) further defined the next level of marketing as "consciousness three" marketing, where organizations attempt to relate to their public, not just their consuming public. Kotler views the public as employees, government agencies, and customers who directly or indirectly consume the products and services of the organization. According to Kotler and Zaltman (1971), the consumer may take different forms. For example, for police service organisations, the consumer becomes directly involved and protected by police apprehension. Educational institutions would have students, parents, and societies as direct and indirect customers. Consciousness three-level marketing views the customer as the purchaser of the product, the consumer of the product, and the community in general for supporting, directly and indirectly, generating social well-being.

According to Shapiro (1973), both level 2 and 3 consciousness of marketing applied to not- for profit organizations has led to the attainment of social goals; thus, marketing can be used in churches, hospitals, the military, and schools and solve social problems, Zaltman and Kotler (1972) briefly summarized this thought when they said: *"Today it's longer a question of whether to use marketing as a social tool but how to use it."* Marketing concepts as a tool and frameworks for social change began to emerge as social marketing. Social marketing then became the practical framework for planning and executing numerous social shifts that sat with the arguments raised by Kotler and Zaltman (1971) that the applicability of the marketing concept to social causes can be significantly promoted through the application of market analysis, planning, and control, this makes firms and individuals social marketers.

In contemporary times, marketing practice has evolved several marketing practices from the marketing orientation concept. The marketing orientation placed the customer at the center of the business operations to satisfy them amid stiff market competition. However, as the competition became more robust, the quality of service rendered became the point of a competitive differentiator, hence the birth of service marketing. Service marketing conceptualizes marketing as a dynamic relationship between employees, customers, and staff (Bitner et al., 2000). Three main arguments in the contemporary marketing literature support this conceptual marketing shift; firstly, there is the advocacy for a move from the more traditional marketing approach, such as product design, pricing, promotion, and placement, to a model that builds relationships with customers (Addis & Holbrook, 2001; Berry, 1995; Ritchie et al., 2003; Patterson & Ward, 2000; Zeithaml & Bitner, 2000). Others argue that the traditional marketing mix is no less important today, but the concept of building customer relationships, whether narrow or broad, is even more critical than ever for long-term success; therefore, a company must choose which of the two is most effective for their market (Copulsky et al., 1990); Day, 2000; Gronroos, 1990; Kotler 1992). The third school of thought suggested that because marketing activities are pluralistic, a delicate balance of transactional and relational marketing strategies can be employed simultaneously (Brodie et al., 1997; Coviello et al., 1997; Coviello et al., 2003).

The transaction, relational, and holistic marketing concepts were born from the three schools of thought. Service marketing, thus, can be represented by two extreme continuums: transactional and relational marketing (Gilbert, 1996). Transactional marketing focuses on the short-term or immediate exchange of value with an unbalanced relationship in favour of the firm (Kotler et al., 2002). The firm focus here is to win in the transaction and acquire new

customers to exchange value with a strong emphasis on the product and one-way communication system between the firm and customer (Christopher et al., 1991; Gilbert, 1996; Kotler et al., 2002). Relational marketing focuses on the lifetime value of the customer and a mutually beneficial relationship between the firm and the customer. Emphasis is placed on customer retention, repeated purchase, and firm-customer intimacy. Building quality service and trust with a strong focus on the market while encouraging a two-way feedback communication loop system (Christopher et al., 1991; Gilbert, 1996; Kotler et al., 2002). The shift towards a middle-balanced ground on the service marketing continuum was a result of the flaws identified in the arguments; firstly, the suggestion by the first school of thought that firms should move from transactional to a model that builds relationships with customers is short-sighted and only assumes that all customers would have the same expectations or a binary choice between transactional and relational, meanwhile not all markets seeks a relationship with the firm.

The second school of thought is characterized by the marketing continuum theory presented by Gronroos (1990) and further supported by Day (2000). It realizes that the relationship may need to be either narrow, at the transaction end of the continuum, or broader, at the relational end of the spectrum; the relationship sought is dependent on the market served, but the firm operates at only one point. The foregone is supported by Kim and Cha's (2002) notion that the move from transactional to relational methods requires the firm to develop a deep understanding of the customers' needs and constantly varying needs and expectations and to market their offerings accordingly, ensuring these needs and expectations are either met or exceeded.

The service marketing continuum theory, however, fails to recognize what Blois (1996) and Kotler (1989) suggest: an individual firm may serve more than one market, and it is then necessary for the organization to make a distinction between those customers who would benefit from relationship marketing, and those who would prefer transaction marketing, resulting in multiple points along the spectrum. The third school of thought's support for this is manifested in Coviello et al. (1997) belief that firms may need to take a pluralistic marketing approach and practice more than one type of marketing at any given time, thus confirming the contemporary practice of holistic marketing.

As a sub-marketing discipline, social marketing is well situated in relational marketing to solve societal problems. The core importance of social marketing is to de-market social behaviours through the design of the desired social product (desired behaviour), price the social product (benefits and opportunity cost), place the social product (designated places for motivating behaviour), and promote the desired behaviours through the creation of awareness (Deshpande & Rundle-Thiele, 2011; Lavack et al., 2008).

2.4 Social marketing

Social marketing was primarily born from the idea of "selling" behaviour change, just as commercial marketing has been successful with soap sales utilizing the marketing process (Kotler, 1972). Classically, Kotler, and Zaltman (1971) defined social marketing concepts with a managerial focus. They conceptualized social marketing as "*the analysis, planning, implementation, and control of programs designed to bring about desired exchanges with target audiences for personal or mutual gain. It relies heavily on the adaptation and coordination of product, price, promotion, and place for achieving an effective response" (*Kotler & Zaltman,

1971, p.4). however, a contemporary definition by Andreasen (1995) provides the most explicit link between commercial and social marketing yet. According to Andreasen, *"social marketing is the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behaviour of target audiences to improve their personal welfare and that of their society"* (Andreasen, 1995, p.7)

Production orientation, a classical marketing orientation, views the organization as an expert in designing and producing products and services that meet market demand. The firm becomes the expert in defining customer needs and wants, subordinating customers' needs and wants to the background and, therefore, dictates what customers receive regarding product quality specification (Kotler & Fox, 1995). During the *Sales orientation* period, production marketing started shifting to sales when the market became very competitive, which presupposed that production had become more than market demand, hence creating a surplus that calls for promotional efforts to push the different products based on consumer need emphasis, making sales critical to the firm's survival (Foskett, 1998). Sales orientation is based on the assumption that customers can be persuaded to buy through excellent promotional and sales strategies and tactics (Kotler & Fox, 1995). *Marketing orientation* emerged as markets became sophisticated, emphasizing service differentiation due to the homogeneity of market-competitive products, hence paying more attention to customer satisfaction through needs identification (Oplatka & Hemsley-brown, 2004). Marketing orientation generates market intelligence and applies to customers' future needs and wants through innovation (Kotler & Fox, 1995; Tse et al., 2005).

The evolution of societal marketing began when researchers continued to analyze both individual and organizational behaviour from the marketing perspective on various applications, including its use in transforming social behaviors as the buying behavior process grows in complexity. Inspired by an article written by Wiebe (1958) that posed the question, "Why Can't We Sell Brotherhood Like Soap?" scholars have continued to examine the potential for marketing to further social issues such as volunteerism, charity, and public health. Traditional marketing theory has already stimulated transactions of products or services between parties that involve currency exchange for some perceived individual benefit, such as improved status, a more secure future, or greater control (Baskin, 2012).

Researchers have recently examined opportunities to use marketing to promote non-economic transactions that improve individual and societal welfare. Kotler and Levy (1969) coined *social marketing* nearly 12 years after Wiebe's work to refer to this process. Social marketing addresses many issues today, with the most widespread evidence of activity occurring in the U.S. public health sector. However, the scope of public and private organizations and academic institutions involved in social marketing is expanding worldwide. In recent years, however, the adoption of marketing by non-profits and other organizations to advance organizational capacity has been met with considerable public acceptance based on altruistic motives. Social marketing creates the social product using the marketing process of social product design, pricing, placement, and distribution (Kotler & Levy, 1969).

Similar to commercial marketing, social marketers have to systematically manage the program, place the target audience at the centre of activities, achieve well-being through influencing behaviour, and realize the importance of persuasion using mixed marketing communications strategies within the context of the voluntary nature of the behaviour. In the

end, the ultimate goal of social marketing is to change behaviours positively, thus benefiting individuals and society at large, not the social marketer. Using various marketing tactics and strategies to influence behaviour change with a primary focus on individuals and their change behavioural needs to satisfy them with the new behaviour must be the right strategy (Andreasen, 1995). Social marketing works with some core concepts, such as targeting individuals. Focusing on target individuals is a core principle of social marketing activities that place the individual at the centre of attention; other behaviour management tools such as education and law tend to focus on organisations instead.

Due to this targeted focus, intervention campaigners pay attention to what matters most by identifying the needs, wants, and benefits that eventually drive the psychological qualities of targeted individuals, usually exhibited through attitudes and norms. It's also crucial to remember the decision-making process during the time-related products is consumed. For example, in dealing with college students drinking responsibly, the time and venue decisions for drinking become critical; thus, understanding the decision-making process allows the social marketer to design a desirable product to mediate the bad behaviour. As the second concept, exchange refers to a value transfer process between two parties (Siegel & Doner, 1998, pp. 29-30). Customers incur financial and non-financial costs to satisfy needs and new behaviour; for example, in commercial marketing, customers typically pay to consume products that harm them, while in social marketing, consumers pay to have alternative behaviour that is better than the previous one. One strategy that works with exchanging values and accepting new behaviours is increasing cooperation's positive outcomes and decreasing perceived costs and barriers to changing behaviours (Andreasen, 1995). In changing the balance between benefits

and hindrances, social marketers use incentives such as price discounts or free trail to make the product of new behaviour more attractive (Maibach et al., 2002).

Market segmentation and analysis as the next concept deals with dividing the population into meaningful categories to address peculiar needs within the segment and tailor the marketing process to achieve social marketing objectives (Dietrich et al., 2017). Intervention campaigns can be designed based on the salient needs of the market segment (Fujihira et al., 2015). In changing behaviours it's also essential to analyze the competition. Social marketers consider destructive, undesirable behaviours as the competition. Many factors within the environment promote undesirable behaviours; social marketers, therefore, need to de-market the existing behaviours by promoting alternative desired products (behaviour) (Hastings, 2003).

As the last social marketing concept, the marketing mix views the marketing problem as developing the right product backed by the proper promotion and put in the right place at the right price (Lahtinen et al., 2020). Social marketing views the product as the new behaviour customers (target individuals) need to "buy "whiles it provides benefits of the products and satisfies the needs through the product in return for a price consideration and other types of cost and thus facilitates the exchange process (Maibach et al., 2002). The product might be a consumable object (such as drinking sugar-free drinks or non-alcoholic drinks), a practice such as avoiding events where alcohol will be served or not visiting a bar, or an abstract belief, attitude, or value like a preference for staying sober and avoiding alcohol at all cost. However, a tangible social product such as alcohol-free events or clubs is more accessible to promote than an abstract idea or a behaviour such as staying sober (Brown, 2006) because it provides enough basis for measuring outcomes and facilitates branding for promotions (Thackeray et al., 2007).

Two critical mistakes have been identified with social marketers' efforts in product management; firstly, the message from marketing communications is often mistaken as the product itself. In such a scenario, price and distribution features are falsely assumed as part of the message; thus, price becomes the cost of buying and scheduling, while distribution becomes the method of reaching individuals through media channels with the information (Deshpande, 2004). Secondly, promotion is erroneously seen as the most critical element in the social marketing mix; however, contrary to popular opinion, the product is the most crucial element within the social marketing mix. Unfortunately, this wrong impression has led to allocating substantial campaign budgets to creating persuasive campaigns at the cost of creating the most attractive social product. The result of an attractive social product with its price and distribution distinguishes social marketing from educational campaigns (Deshpande, 2004).

Pricing the "product" in social markets means the financial and non-financial (time or efforts, opportunity cost, risk of embarrassment and disapproval) costs borne by the target segments (Joyce & Morris, 2017). An improper pricing strategy negates the benefits offered by the social product; therefore, a combination of a good product at a lower price (target convenience and benefits) ensures the success of a social marketing intervention campaign (Dann, 2010). A good pricing strategy triggers the capacity to acquire the social product (Lefebvre, 2008).

In social marketing, place refers to how the target segment acquires the social product. A good distribution or placement strategy creates convenience and benefits the product (Prata et al., 2013). In creating a placement strategy that ensures convenience, social marketers must ensure that the product is located at the right place and time in terms of hours, flexibility, and facilities while matching the lifestyles and habits of the target segments to the product

requirements (Thackeray, 2010). For example, in creating a social market placement strategy for a social market product of staying sober from alcohol consumption, social marketers must create convenience meeting places such as those offered by alcohol anonymous (A.A.) to former alcoholics wanting to remain sober (Irving, 2016).

The last "P" in the social marking mix refers to promotion, the marketing communication persuasion strategy, and tactics that will make the product familiar, acceptable, and desirable to the target segment (Kotler & Zaltman, 1971, p.7). Social marketing's main task is to de-market the undesired behaviour by creating demand for a new desired behaviour through promoting the desired behaviour. Therefore, promotion in social marketing creates persuasive messages that move the target segment into accepting the social product (new desired behaviour) using brand positioning, pricing, and placement strategies as marketing process strategies. The focus of promotional communications is on the benefits of adopting the new product (new behaviour) and less on the negatives of the competition (other products competing for the target segments' attention) (Thackeray et al., 2007). This focus differentiates promotion in social marketing from education. In terms of sequence, it is critical to begin by assessing target needs, develop product, price, and place, and only then think of evolving a promotion campaign (Deshpande, 2004)

Public sector marketing is the umbrella for accommodating all marketing practices not for profit. In essence, the public sector differs from the private sector in terms of its characteristics, the nature of products/services, non-financial objectives, multiple stakeholders, and non-market pressures due to the absence of competition (Serrat, 2017). "not-for-profit" or "non-profit" is a descriptive and self-defining moniker. By definition, such organizations do not seek to profit from redistribution to owners or shareholders. Lovelock and Weinberg (1982, p. 32) stated that;

"Because most nonbusiness organizations neither seek a financial surplus nor expect operating revenues to cover full costs, their mission statement invariably gives priority to non-financial objectives."

This absence of a quantitative financial "bottom line" should not make it more difficult for marketing objectives to be set by non-profit firms. From a marketing perspective, the goal to be achieved is a mutually satisfying exchange; the results from achieving the plan may or may not be profits. Kotler (1988) referred to the non-profit and public sectors as "nonbusiness" organizations. Lovelock and Weinberg (1982) also referred to the "nonbusiness" industry as having the following characteristics: (1) multiple publics; (2) multiple objectives; (3) services and social behaviors rather than physical goods; (4) public scrutiny and nonmarket pressures; and (5) dual management.

2.5 Conceptualisation of Behaviour Change Maintenance

2.5.1 Behaviour change maintenance versus behaviour change initiation

Within the context of health-related behaviour, behaviour change maintenance as a concept, in actual practice, cannot occur without fully appreciating the idea of behaviour. In conceptualizing behaviour, Hobbs et al. (2011) defined behaviour as anything a person does in response to internal or external events. Actions may be overt (motor or verbal) and directly measurable, or covert (activities not viewable, e.g., physiological responses) and indirectly measurable; behaviours are physical events that occur in the body and are controlled by the brain.

In conceptualizing behaviour change initiation and maintenance, Rothman (2000); Rothman et al. (2008); Rothman et al. (2011) proposed a behvaiour change model in which behaviour change maintenance is delineated from behaviour change initiation. Initiation of behaviour change has been conceived as a procedural-based set of activities where the

individual aims to reduce the variations between current situations, unwanted behaviours, and the anticipated desired behaviour. Initiation also has its antecedents in the individual's will to effect changes and supposed obstacles and barriers that would oppose the same.

On the other hand, maintenance has been conceived as a series of activities based on preventing slips into the old behaviour, as success hugely depends on clear enjoyment motives that depart from behaviour initiation motives (Rothman et al., 2011). According to Rothman (2000), successful maintenance of a changed behaviour depends on one's ability to guard against undesired outcomes and lapses, explained mainly by the self-regulatory focus of the behaviour. These foci inform the strategies deployed to sustain the gains in changed health behaviour following a successful behaviour change initiation campaign or intervention.

Earlier, Seymour et al. (2010) conceptualized behaviour change maintenance as sustained behavior during the observation period and after the intervention has stopped that meets a threshold believed necessary to improve health or well-being within a given population. According to this conceptualization, behaviour change maintenance occurs after successful interventions create initial behaviour change, which is sustained to prevent relapse to the old behaviour. The forgone answer, *"after behaviour change, what next?"*

In a nutshell, behaviour change initiation is heavily expectation driven caused by marketing communications during intervention campaigns so that the individual compares the new behaviour with what has been promised (expected) from the campaign drive. In contrast, behaviour change maintenance is solely driven by behaviour enjoyment and satisfaction; here, the individual compares the benefits gained from new behaviour against previous behaviours (Rothman et al., 2011). In measuring behaviour change maintenance, Anderson (2017) observes a series of items on the behaviour maintenance scale that captures the essence of health-related

behaviour change maintenance satisfaction, inspiration, and enjoyment by individuals at the center of change maintenance; these items or questions are in line with the construct conceptualization by Rothman (2000).

An example of such methods as discussed above is to expect both positive and negative results of the changed behaviour relative to the old behaviour, for instance, increased one's social network as a reward for avoiding alcohol consumption as against the feeling of loneliness from indulging in few pints of alcohol. Another unique distinction between behaviour initiation and maintenance is behaviour planning which happens at the personal willingness level of the behaviour. New goals and action plans that allow for specific actions to be executed and accounted for help the initiation of new beaviours (Gollwitzer, 1993); specified activities that are clear and measurable result in the successful determination of significant behaviour change(Gollwitzer & Paschal, 2006). Undesired habitual behaviours are adequately replaced with desired behaviours using good action plans as guides (Adriaanse et al., 2011). Once healthy habits are attained, several demands and situations, such as advertising alcohol, may threaten this situation (Rothman et al., 2009). Strategic planning thus becomes an important exercise to deal with risky behaviours (Bouton, 2000). Therefore, health behaviour change would be sustained through a delicate balance between initiating new healthy habits and strategic plans to deal with the high emerging risk of relapse.

Behaviour change initiation and maintenance can also be conceptualized as the "who guides the monitoring?". During behaviour change initiation, lapse is monitored by experts providing the intervention; in practice, the experts set targets for assessing change initiation. The above procedure allows for the development of customized programs and skills training for individuals to aid in the change initiation process. Intervention-aided monitoring provides

accountability through the assessment process and helps boost the success rates of change initiation (Ryan & Deci, 2000). Self-monitoring skills are taught at the level of change initiation to specific individuals based on their needs; otherwise, they would have been done remotely through the self-targeted benchmarks and assessments. In practice, relapse avoidance would consist of activities that prevent individuals from slipping into old undesirable habits so that self-monitoring continues unaided throughout the maintenance process, with the individual at the centre of the monitoring responsibility (Voils et al., 2014).

The source of social support indicates an absolute difference in how behaviour initiation change and maintenance are conceived. For example, during behaviour change initiation, social support usually is provided closely by the experts or other participants or groups such as alcohol anonymous (A.A.) within the intervention process (Voils et al., 2014). Social networking skills are also learned during intervention to equip individuals to build their social capital by acquiring friends, peers, family members, and co-workers. In most cases, individuals already have good social support before starting the intervention process; therefore, the interventionist only acts as an intermediary throughout the process (Sperber et al., 2013). As with all interventions, its implementation phase would elapse, taking with it the social support structures it created, thus leaving target individuals and their social networks on their own to cope with behaviour change maintenance (Prochaska et al., 1997).

2.6 Study Context: South Africa

2.6.1 Demographic Profile

South Africa is the southernmost African country and borders Botswana, Mozambique, Namibia, Swaziland, and Zimbabwe. The country covers an area of 1,221,000 $km^{2,}$ which the Official estimates in 2021 put the population at 60 million. Pretoria, Capetown, and Bloemfontein were the administrative, legislative, and judicial capital. South Africa has 11 official spoken languages, with Zulu (23%), Xhosa (16.0%), and Afrikaans (13.4%) being the most widely spoken. South Africa has predominantly 80% different Christian denominations nationwide with a relatively minor Muslim population. The country is famous for its diversity and unique tourist sites such as the Kruger National Park, the Cape of Good Hope, the Barberton Green Stone Belt, God's Window, Blyde River Canyon, the Drakensberg, Boulders Beach, Golden Route, and above all, its Wine (One World - Nations Online, 2022).

2.6.2 Economic Profile

South Africa is a middle-income emerging market with well-developed infrastructure, natural resources, a financial market with an international reputation, and promising legal, communication, energy, and transport sectors (Andreasson, 2011). Economic growth has recently declined, with an estimated 0.7% reduction in 2017. Despite its middle-income status, unemployment, inequality, and poverty remain challenging (Besada et al., 2013). For example, the official unemployment report is 27%, significantly high among young black South Africans (Yu, 2013). Despite good infrastructure credentials, South Africa still battles with resource distribution challenges such as electricity and water supply to rural and peri-urban areas (Amoateng & Kalule-samiti, 2012). Most of these challenges have historical antecedents from

pre-apartheid South Africa, where resource distribution was unfairly skewed (Akinola, 2020). Economic structural constraints that echo South Africa's past remain despite incremental efforts to address them over the years. For example, the country is still challenged with poor skills development, growing global uncompetitiveness, and industrial instability due to strikes of Unions demanding better working conditions (Akoojee, 2009; Kraak, 2008). With an estimated Gross Domestic Product (GDP) of 730.913 billion USD in 2019 (primarily driven by industry and service sectors) and 55% of the population below the poverty line, South Africa is predicted to retrogress further unless it deals with corruption and increase investments in skills development to raise the level of global competitiveness (Rooney & Bhorat, 2017). The global pandemic of Covid-19 in the latter parts of 2019 to 2020 has further slowed South Africa's economic growth rate and asked many questions about the economy's resilience (Arndt et al., 2020).

2.6.3 Alcohol Industry Profile

In the 2020/21 financial year, the South African liquor industry accrued an annual income of USD 10,780.00m and is projected to grow annually by 8.50% (Walbeek & Chelwa, 2021). The industry directly employs approximately 90,000, with 500,000 jobs directly and indirectly linked to the liquor industry (Charman et al., 2013). Although the alcohol industry is repleted with many categories of alcoholic products, beer appears to be the dominant variety of preferences among consumers, thus accounting for 77.7% of all alcohol consumed (Rogerson & Collins, 2015). Indeed, Beer sales reached 3.1 billion litres, translating to a value of R52.7 billion (Rogerson & Collins, 2019). Historically, the industry has seen some consolidation due to polarisation between the top-performing brands and the smaller market followers brands yearning for strategic relevance (Jernigan & Babor, 2015). This consolidation of Distell, for

example, has increased the gap and competition even among top-performing brands due to economies of scale (Cusmano et al., 2010). The transition of Gilbeys South Africa into Guinness UDV created a duopoly of two strong brands that dominate the liquor industry in South Africa (Reality Research Africa, 2004). South Africa Breweries (SAB) equally showed promise in volume growth from 200. however, the presence of Namibian Breweries' brands in the premium beer market is expected to give SAB's dominance in the beer market some level of competition (Reality Research Africa, 2004). As an emerging market, South Africa is repleted with so many competitive alcoholic brands, from beers, spirits, ciders, and wines (Jernigan & Babor, 2015). The established brands have well-planned distribution networks that are regulated. However, there is a seemingly sizeable unregulated alcohol market that is difficult to control due to its informal covert structure (Setlalentoa et al., 2010). These unregulated brands in the market serve consumers who fall below the middle-income level (Masola et al., 2019). These illegal alcohol distributions and sales significantly contributed to the extreme cases of the harmful use of alcohol among the poor (Olivier et al., 2016). For example, during the COVID-19 pandemic, the ban on alcohol during the lockdown periods culminated in illicit sales of alcohol, with an estimated loss of over R12.9 billion to the industry (Theron et al., 2022).

South Africa is the seventh-largest producer of wine in the world and a significant employer in the wine-growing regions (Conradie et al., 2018). South African wine remains an important product category and brand of origin-destination for many wine lovers across the globe (Ferreira & Hunter, 2017). However, wine sales declined by more than 10% in volume in 2020, with domestic sales slightly edging out of export sales volumes (Davids et al., 2022). Despite the lockdown during Covid 19, the revenue of wine exports to international markets other than those within the South African Development Community (SADC) regions appreciated in 2020 (Davids

et al., 2022). Shortages of raw materials and financial pressures threaten the wine industry's survival (Badenhorst-Weiss & Naudé, 2020). In the case of alcohol retail, supermarkets such as Spar, Massmart, Pick and Pay, and Shoprite have gained a foothold in the distribution spots due to their presence nationwide, thus reducing the strength of independent bottle store operators and making alcohol products accessible (Babor et al., 2015). Despite the few setbacks in sales due to the Covid lockdowns, industry watchers view the 2016 merger of SAB Miller and Anheuser-Busch InBev (An InBev) as further consolidation of favourite beer brands and is expected to rake in annual sales of 55 billion USD through a local and global consumer affordability and accessibility strategy (Bamber, 2019; Pokrivčák et al., 2019).

2.6.4 Alcohol Consumption, marketing, and regulations

2.6.4.1 Alcohol consumption patterns

South Africa's adult per capita alcohol consumption in 2005 reached 9.5 litres of pure alcohol (Probst et al., 2017). According to Probst et al. (2017), 26.3% of 9.5 litres amounts to illegal homemade alcohol, which the WHO calls unrecorded alcohol. As discussed earlier, homemade alcohol accounts for most of the harmful effects of alcohol use due to its impurities and lack of guaranteed product quality (Setlalentoa et al., 2010). Adult per capita consumption of 9.5 litres is above the global average of 6.13 and the regional African average of 6.2 litres (Trangenstein et al., 2018). Analysis of pure alcohol consumed by 15 years old and above of the consumption population (recorded and unrecorded) shows that South Africa has the 5th highest ratio globally and is only better than countries such as Mali, Comoros, and neighbours Zimbabwe (WHO, 2019).

The effect of the 5th ratio means that each person within the consuming population consumes about 39.4 litres of pure alcohol per year (WHO, 2019). The forgone implies that an abstention

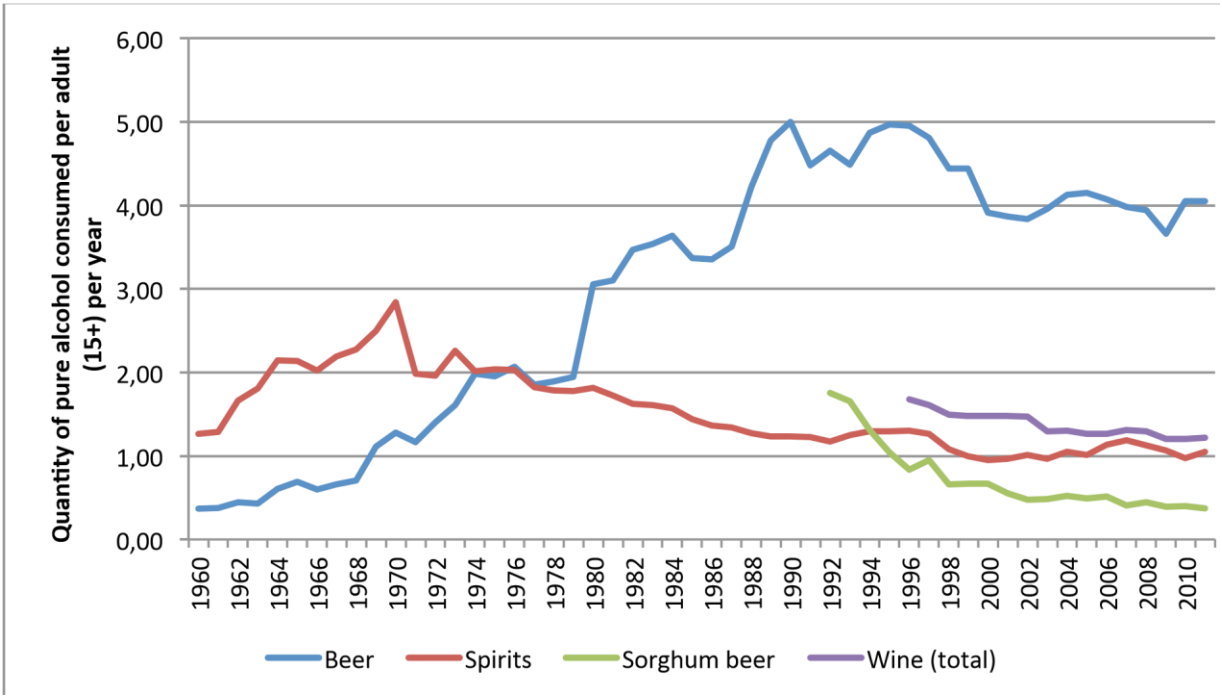
rate of 73% within the general population and partly in the consuming population does not prevent high consumption rates among the consumption population (WHO, 2019).

It is widely known that South Africa has been a nation of beer drinkers for over 53 years and counting (Mager, 2005). Historically, between 1960 and 1970, the total beer consumption in South Africa grew by an average rate of 16.1%, while per capita consumption grew by an estimated average of 13.3%, which is significant due to its low base of commencement(Mager, 2005). Between 1980 and 1990, growth decelerated slightly from 12.3% to 8.5% and per capita consumption from 9.1% to 5.0%, albeit from a strong base set in the decade between 1960 and 1970 (Mager, 2005). In the 1980s, when the apartheid government removed restrictions on alcohol use by Africans, places in the townships, such as the shebeens, became spots for socialisation, and beer was the obvious choice (Drivdal & Lawhon, 2014).

On the other hand, the consumption of spirits has seen a steady decline over the years, apart from its initial boom between 1960 and 1970 of an aggregate growth rate of 11.1% and a per capita consumption rate of 8.4% (Mager, 2005). The consumption of spirits has not seen any significant growth in the last 40 years (Blecher, 2015). Indeed from the 1970s, with a peak of 2.84 litres per adult consumption per year, annual consumption of spirits has declined by 2.3%. Wine consumption has, however, remained consistent for the period preceding 1996 and only declined by 2.1% per capita consumption between 1996 and 2010 (see figure 1) (Van Walbeek & Blecher, 2014).

In recent times, consumption patterns have followed the trajectory of a steady rise from 2010 to date (Van Walbeek & Blecher, 2014). During the covid 19 lockdowns, for example, the ban on alcohol further pushed and enlarged the home-brewed illegal market prices high with the increase in demand (Theron et al., 2022).

Figure 1: Per capita consumption of absolute alcohol per category for 15 years and older consuming population from 1960-2010.



Source: Van Walbeek and Blecher (2014)

Another critical aspect of the alcohol consumption pattern in South Africa is Heavy Episodic Drinking (HED). HED is defined as consuming at least 60 grams or more of pure alcohol in the past week on at least one occasion (Hartzler & Fromme, 2003). Regarding binge drinking, HED accounts for most injuries from motor accidents, domestic violence-related cases, and risky sexual behaviours in South Africa (Morojele & Ramsoomar, 2016). Among the

drinking population, 45.4% engage in Heavy Episodic Drinking, which is higher than the global average of 11.5% (Trangenstein et al., 2018). It's worth noting that alcohol dependence alone contributes insignificantly to harm at the population level (World Health Organization, 2019). However, binge drinking, or HED, has significantly impacted the broader population by affecting different demographics (WHO., 2019). For example, 23% of South Africans who drank alcohol in the previous week, almost half, and 48% of the same drinkers, have engaged in binge drinking. In comparison, 29% identify as heavy drinkers (drinking 15 units or more of alcohol weekly) (Vellios et al., 2018).

In South Africa, drinking is higher during weekends than on weekdays and much more intense at the weekend following salary payments (Setlalentoa et al., 2015). The demand for alcohol is rising, as seen in the increasing household expenditure on alcohol products. For example 2011, alcohol expenditure accounted for 2.7%, translating to R56.6 billion of total household expenditure items (Walbeek & Chelwa, 2021). Black Africans also appear to spend more on alcohol than their Indian/Asian, coloured, and white counterparts (Walbeek & Chelwa, 2021).

There is a growing trend of alcohol consumption abstention. For example, in 2018, 65% of the world's population had never consumed alcohol (the highest in the world), and 7.7% of these people aged 15 years and above see themselves as former drinkers (WHO, 2018). Equally, three-quarters of the population have abstained from alcohol for a year (WHO, 2018). However, of the 35% of the population that consumes alcohol, only a few consume branded alcohol products, and the majority consume home-brewed liquor, which is illegal (WHO, 2018). Like the branded product versus the illegally brewed liquor products, the distribution patterns in the same measure reflect the consumption pattern. For example, there are an estimated 50,000-60,000 legal or

licensed outlets for sales across South Africa; in contrast, there are an estimated 120,000 illegal/unlicensed outlets equally spread across the country (Casswell et al., 2018).

2.6.5 Alcohol marketing and regulation

Alcohol marketing, with its branding, pricing, promotion, and distribution strategies in South Africa and other parts of the world, has been observed to recruit new consumers into the market, encourage early drinking among young people, and intentionally target the youth (Hastings et al., 2005). Existing evidence suggests that these alcohol brands deliberately encourage underage drinking through integrated promotional strategies (see; Jernigan et al., 2016; Morojele et al., 2018; Noel et al., 2016). Due to the hydra-headed nature of alcohol marketing, tackling only advertising as a promotional element to reduce the harmful effects of alcohol consumption would not be sufficient (Petticrew et al., 2017; Saffer & Dave, 2002). An integrated approach that tackles pricing, sales distribution, and a social marketing campaign would be more effective (Gordon, 2013). A cursory look at the alcohol promotional scene in South Africa shows how alcohol brands have become adept in deploying integrated promotional strategies such as sponsoring sporting events, sporting clubs, music, art, and film festivals, and some national and private events (Westberg et al., 2018), As evident in the South African total industry advertising expenditure which reached R1.7 billion in 2012 and still raising (Bertscher et al., 2018). The consolidation of SAB and Miller Breweries to become SAB millers has made South Africa the second-largest beer producer in the world, with enormous implications for advertising expenditure (Bertscher et al., 2018; Davids et al., 2022). For example, from 2013 onwards, SAB Miller, Brandhouse, and Distell advertising expenditures accounted for 85% of the total industry expenditure (Bertscher et al., 2018).

In response to the apparent alcohol marketing activity onslaught on the South African market and its harmful effects, the South African Department of Social Development (NDSD) and the National Department of Trade and Industry (NDTI), under the auspices of the National Department of Health (NDoH) created a new draft Bill in 2013 named the Control of Marketing of Alcoholic Beverages Bill (Trangenstein et al., 2018). The new bill has the following objectives: 1. It restricts the advertisement of alcoholic beverages; 2. It prohibited any sponsorship related to alcoholic beverages; and 3. It prohibits any promotion of alcoholic beverages (Vellios et al., 2018). Before the drafting of this new bill, the alcoholic beverage marketing environment was governed by the liquor Act (Act, No.59 of 2003, 2004), which has flaws such as prohibiting advertisements targeted at minors and misleading and false advertisements (Reality Research Africa, 2004). How alcoholic firms complied with the liquor Act was through self-regulation and were required to also adhere to the Code of Commercial Communication and Conduct of the Industry Association of Responsible Alcohol Use while reporting annually to the Department of Trade of Industry through a compliance certificate as evidence of compliance (Reality Research Africa, 2004). However, through self-regulatory compliance, the liquor Act failed to prevent alcoholic brands from promoting alcohol to minors with alcohol-branded theme school parks and playgrounds (Charman et al., 2013). These flaws and many more were the loopholes the new Bill sought to cure.

2.7 Theoretical Framework

2.7.1 Ecological system theory

The ecological system theory by Bronfenbrenner (1979) inspired the development of the distal and some micro elements of the proximal factors in the conceptual framework of this study. The theory is grounded in the belief that culture and society provide designed "instructions" for individuals on how socialisation processes are navigated within a nested context that provides different influences from different levels within the framework. Rightly so, the theory is often presented in the extant literature as layers of a nested system to reflect the relationship between each (Adu & Oudshoorn, 2020; Lau & Ng, 2014; Onwuegbuzie & Frels, 2013). Ecological system theory has applied to different phenomena, from education, relationships, environment protection, and health-related behaviours. This study utilised the theory's explanatory rather than predictive powers to explain the maintenance of health-related behaviour change, focusing on alcohol behaviour change. Bronfenbrenner's ecological system theory (1979) shows important interrelated factors from the micro, meso, macro and chrono systems that affect the individual's behavior at the centre of system. This study takes the position that, the individual health related behaviour is influenced by both proximal and distal historical, social, cultural, and economic ecological factors. The study, therefore, focuses on factors from the micro, meso, exo, and macroecological system to explain the phenomenon of health-related behaviour change maintenance.

2.7.1.1 Micro-system

The micro-system comprises factors directly affecting the individual's behaviour (Bronfenbrenner, 1979). The micro-system starts from individual characteristics and choices, to the social systems (both micro and meso). For example, a typical health-related behaviour such as alcohol addiction would have the individuals with their beliefs and values either influenced or supported by their immediate family members or friends and colleagues in a working environment; on the other hand, the process of maintaining a changed behaviour also needs the same social support, sometimes in the form of encouragement and as a means of social accountability. Several individual characteristics and choice factors have been identified within an ecological health-related behavior system to affect engagement with health-related behaviour. For example, Fry (2011) identified personal factors, beliefs, pre-existing biological factors, predispositions, and attitudes as directly responsible for predicting individual actions. In practice, people respond to the marketing system, from pricing to the promotion of alcohol, gambling, and opioids, by engaging between their characteristics and choice factors (micro) and social support systems (meso) (Pettigrew et al., 2011). This forgone statement implies that the social support processes interplay between micro and meso systems (Brennan et al., 2016).

2.7.1.2 Meso-system

Bronfenbrenner (1979) states that the meso-system connects the exo-system and the micro-system (the individual). It is within the meso-system that the individual begins to interact with other ecological influencers beyond their characteristics and choices; for example, social systems come in two forms: first, the micro-social system that deals with influences from immediate family members and neighbours, and the meso-social consisting of workplace colleagues, schools and communities. These two social systems lay the social connection of

behaviour for individuals within the ecosystem. As Lunnay et al. (2011) observed, the social system can act as both enablers and restrictors, depending on how the scale of influence tilts.

Within the meso-system is a subsystem Brennan et al. (2016) called "behavioural infrastructure." This subsystem acts as a catalyst to either speed up or slow the engagement with unhealthy behaviour such as smoking, gambling, and compulsive drinking (e.g., The availability of these products at major vending points against efforts to reduce their distributive channels). Demographics also sits within the meso-system, because previous studies have shown the apparent influence of socio-economic factors on health-related behaviours (Jackson et al., 2014; Ringel et al., 2006).

2.7.1.3 Exo-system

The exo-system within the behaviour ecosystem is where the individual does not actively participate but is highly affected, or other systemic factors are influenced hugely. They are mostly the linkages between two or more elements within the micro and meso system (Bronfenbrenner, 1979). For example, public policy (macro system) drives the regulatory and legal environment from which society gets injunctive norms (meso-system) from which individuals generate their beliefs about their behaviour (micro-system) (Brennan et al., 2016). Elements within the exo-system include but are not limited to governance issues such as legal and regulatory frameworks. These institutions act as enablers or restrictors (e.g., promoting and countering distribution efforts), mass media, and the marketing system. The marketing system relates to those commercial activities that seek to stimulate and distribute these unhealthy products through pricing, distribution channels, and promotions.

2.7.1.4 Macro-system

The macro-system elements include all factors affecting the system outside the micro, exo, and meso systems. Bronfenbrenner's (1979) conceptualisation of the macro system factored in all possible elements within the external environment, which usually the individual has no control over but affects their behaviour in many ways; this is what Hovell et al. (2002) describes as the bi-directional power of the macro-system. Perhaps the highest level of influence is with the exo-system due to their proximity. Public policies, marketing activities, societal systems, and legal and regulatory frameworks are some elements identified with the macro-system (Brennan et al., 2016). Studies have shown, for example, that alcohol consumption can be significantly reduced or encouraged depending on how public policy is crafted through marketing policy (pricing), economic policy (taxing alcohol), supply policy (controlling distribution channels), and funding policy (providing funding into alcohol consumption research) (Jackson et al., 2014).

2.8 Transtheoretical model of health behaviour change

The transtheoretical model deploys stages of change, which are temporal dimensions emanating from different theories of intervention that have successfully incorporated different processes, hence the transtheoretical (Xiao et al., 2004). The model has its roots in behaviour change and comparative analysis of leading psychotherapy theories (Clark, 2013; Prochaska, 2020). The comparative analysis in psychotherapy discovered ten unique change processes, such as consciousness, contingency management, and helping relationships from the Fraudian, Skinnerian, and Rigerian traditions and schools of thought, respectively (Castonguay et al., 2015). The model posits that health behaviour change has six stages: pre-contemplation, contemplation, preparation, action, maintenance, and termination. These stages use ten identified

processes for measuring results along the stages of change (Lowther et al., 2007). The model gained attention from researchers and practitioners after its initial breakthrough research on self-changers and smokers in a professional treatment environment (Diclemente et al., 1991; Prochaska & Velicer, 1997). Further insight into the stages of change emerged after the audience under study explained that they used different processes throughout their attempt to quit smoking (Prochaska & Velicer 1997). After the smoking quit the study, the model has been widely used in other health-related behaviours such as alcohol consumption, obesity, eating disorders, AIDS prevention, mammography screening, unplanned pregnancy, and physical activity (see: Cotton & Gielen, 2004; Horowitz, 2002; Migneault et al., 2005; Pirzadeh et al., 2015). This wide scoping of the model's application has allowed its constructs to be validated over time (Nigg et al., 2011).

The stages are the model's critical core constructs because they represent temporal dimensions. In essence, it presents behaviour change as a phenomenon that occurs with time, where the time frames have distinctive activities as enablers of success (Choi et al., 2013). The model thus successfully breaks behaviour change into six unique stages that incorporate the element of time, thereby filling the gap of an absence of a model with a time element in health-related behaviour change therapy practice and research (Choi et al., 2013). The six stages of change are presented as follows;

2.8.1 pre-contemplation stage

In the pre-contemplation stage, audiences are not prepared and willing to take action in the foreseeable future, conventionally measured as the next six months (Paek et al., 2010). From a social marketing perspective, most audiences are in this state due to the absence of appropriate information to create awareness about the dangers of their inaction (Grier & Bryant, 2005). It is

equally plausible that these audiences might have tried behaviour change several times and failed (Prochaska et al., 2013). After failing, these audiences' posture is to avoid reading, listening, talking, and thinking about their high-risk behaviours (Bünzli & Eppler, 2019). Social marketers and other interventionist practitioners often describe such groups as unprepared and unmotivated for change (Lynch et al., 2014) and usually do not spend resources to try to convince them (Lynch et al., 2014). Primarily, most social marketing interventions perceive such audiences as way too expensive to transition to the next phase of change, especially within dwindling social marketing intervention budgets (Vries et al., 2016).

2.8.2 Contemplation stage

Unlike the pre-contemplation stage, the contemplation stage involves the preparedness and readiness of the audience to make efforts to change within the next six months (Diclemente et al., 1991). This stage is a critical phase because it presents the pros and cons and the benefits and barriers of the behaviour change to the audience, and depending on how they perceive these advantages and the barriers plus the disadvantages and benefits on their way, they might either be motivated or demotivated to action (Mair & Laing, 2013). Again, the improper balance between benefits and barriers may keep the audience indecisive, leading to a delay in taking action (Coulson et al., 2016). Experts call this phenomenon chronic contemplation or behaviour procrastination (Velicer et al., 1998). Similar to social marketing intervention's lack of interest in pre-contemplators, contemplators equally do not present an attractive proposition to be engaged by behaviour change interventions due to their benefits and barriers ambivalence (Campbell et al., 2004). However, they also present an opportunity to remove those barriers further and elevate the benefits as a basis for action (Campbell et al., 2004).

2.8.3 Preparation stage

At the preparation stage, the audience is prepared, ready, and intends to take action in the immediate future, often measured as the next month (Armitage, 2009). indeed, the audience at this stage has made initial efforts to change their behaviour, as evident in their desire and action to seek the best information to help make that move of taking action in the past year (s) (Armitage, 2009). Their health information-seeking behaviour manifests in health-related journal readings, talking to experts, and joining clubs and associations that promote behaviour change (Longo et al., 2013). They do so with an unambiguous action plan (Hicks et al., 2017). At this stage, the audience is willing to start behaviour change through self-change strategies outside the influence of external interventions (Gozzi et al., 2021). In social marketing, the audience at this stage presents an attractive proposition for campaign intervention to change behaviour (Tweneboah-koduah & Owusu-Frimpong, 2013). Social marketing efforts at this stage must emphasise the benefits and water down the barriers through strategic opportunities in setting up places for finding help and reducing the cost of action (Tapp et al., 2013).

2.8.4 Action stage

In the action stage, the audience makes concrete efforts to change their lifestyles, usually within the past six months (Prochaska et al., 1997). The audience at this stage begins to take practical steps to amend current behaviours towards desired changed behaviour (Armitage, 2009). These actionable steps are observable and have been observed in the past to include activities such as in the case of smoking and alcohol quit behaviour, count of the number of sticks, reduction of tar/nicotine, and volume of alcohol consumed become the criteria for measuring the progress of action (see: Johnson et al., 2008; Erol et al., 2018; Watakakosol et al., 2020). However, in contemporary social marketing and behaviour change therapy literature,

complete abstinence is the only measure of a successful action toward behaviour change (Mutter et al., 2020). Leading researchers and scientists in behaviour change practice have equally acknowledged that a criterion of action must include elements that reduce the risk of disease, starting with a gradual reduction of the source of harm to ultimate abstinence (Macmaster, 2004).

2.8.5 Maintenance stage

In the maintenance stage, the audience sustains the gains from all the other stages of behaviour change (Prochaska, 2020). The sustainability of behaviour change is imperative due to relapse (Mceachern et al., 2020). Relapse is the return to an earlier stage or from maintenance or an action stage to an initial stage such as pre-contemplation (Mceachern et al., 2020) (see fig 2). At the maintenance stage, behaviour change experts expect the audience undergoing behaviour change to cease applying behaviour change processes as it was at the beginning of the change process (Mair & Laing, 2013); in essence, the maintenance of the behaviour is an important milestone and most often the overall goal of most behaviour change interventions (Short et al., 2013). According to Baldwin et al. (2006), the behaviour change process initiation has experts guiding the audience along the early stages; however their help and insight seem to disappear at the maintenance stage, making maintenance a self-made effort based on the audience's level of self-efficacy and self-regulation. Thus the temptation at this level is expected to be low and the confidence (self-efficacy) of the audience to sustain the changed behaviour is also expected to be high (Holloway & Watson 2002).

Despite the existing evidence of the role of self-efficacy in self-help efforts of change sustenance, high relapse rates continue to plague most health-related behaviour change intervention efforts (Murray et al., 2013; Pagano et al., 2009). Available temptation and self-efficacy empirical evidence shows that maintenance endures for about six months to 5 years (see:

Johnson et al., 2014; Murray et al., 2017; Skinner et al., 2020); while this evidence provides some level of despair, longitudinal data from the 1990 Surgeon General's report equally gives credence to this assertion (Herd & Borland, 2009). For example, 43% of quitters returned to active smoking after 12 months of continuous abstinence, and after five years, only 7% relapsed to active smoking (Herd & Borland, 2009). The evidence suggests that maintenance needs to be sustained beyond five years to attract a behaviour change termination status (Prochaska et al., 2013). In the extant social marketing literature, for example, enough evidence exists on behaviour change action strategies but not enough on maintenance efforts which ironically causes relapse to reverse all the gains made at the action stage (see empirical literature review in Appendix).

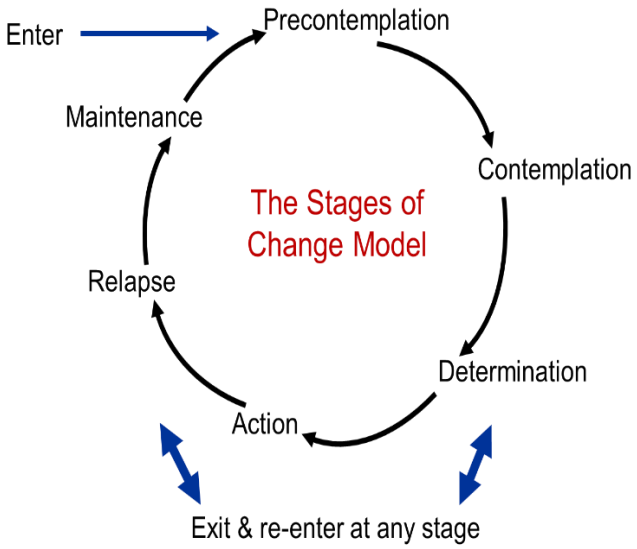
2.8.6 Termination stage

The termination stage is the ultimate long-term effect of a successful behaviour change management process (Cotton & Gielen, 2004). At this stage, the audience has reached 100% efficacy (confident in their ability to sustain the gains and avoid relapse) and zero temptation rate (Hausenblas et al., 2007). At this stage, the audience under termination is unaffected by environmental factors such as the marketing of alcohol, tobacco, or other health-related products and personal emotional factors such as depression, anger, and stress (Fallon et al., 2005). There is a high certainty that the old behaviour may never return (Brogan et al., 1999). Although the termination stage represents an ideal goal for behaviour change sustenance, its attainment remains elusive for y audiences undergoing behaviour change management (Du For example, in a study of former alcoholics and smokers, less than 20% of each group (former alcoholics and smokers) were found to have attained 100% self-efficacy and zero temptation, which are the gold standards for behaviour change process termination (Prochaska, 2008). This standard has proven

challenging to attain, and more audiences under behaviour change are encouraged to realistically sustain the gains at maintenance using lifetime maintenance strategies such as benefits innovation and reinforcements to avoid relapse (Voils et al., 2014).

Due to the elusive nature of the termination stage, experts and researchers in behaviour change have called for attention to behaviour change maintenance studies as a realistic goal than termination (see: Caldwell et al., 2018; Fay et al., 2021; Kwasnicka et al., 2016).

Figure 2: The Stages of Change Model



Source: (Wayne, 2019)

2.9 Process of Change

The process of change is the activities used by the audience undergoing behaviour change management to operationalise and execute their goals at each stage of behaviour change process (Wayne, 2019). These represent the exact activities that are latent and seen throughout the audience's effort to achieve a stage goal and are crucial for measuring behaviour change progress under each stage by behaviour change intervention programe managers (Prochaska et al., 2013). The ten processes of change that have had empirical success to date (Armitage, 2009) are reviewed as follows:

2.9.1 Consciousness raising

Consciousness-raising involves awareness of the dangers and consequences of continuous engagement in unhealthy lifestyle behaviours (DiClemente, 2018). The awareness creation not only exposes the dangers of the behaviour but also presents audiences with insights into how to seek solutions and remedies for the behaviour (Petrocelli, 2002). creating awareness is one of the activities performed by social marketing intervention programs at the pre-contemplation and contemplation stage to trigger the audience into taking action on their behaviour (Norcross et al., 2011). conventionally, interventions use integrated marketing communication strategies such as advertising, direct marketing, and personal selling. In contrast, promotional tactics use social media and traditional Tv and radio platforms to reach an audience (Bernhardt et al., 2012).

2.9.2 Dramatic relief

Dramatic relief involves techniques that can move the audience emotionally, thus sending them into a profound reflection on their habits and their consequences on themselves and society (Norcross et al., 2011). Usually effective at the contemplation stage, small homogenous

gatherings discussing personal testimonies (such as what happens at Alcohol Anonymous (AA) meetings), role-playing, grieving psychodrama, and intense media campaigns using appeals to emotions strategies have been identified to be effective for moving audience into action (Humphreys et al., 2004; Humphreys, 2000).

2.9.3 Self-reevaluation

Self –reevaluation consists of techniques combining cognitive and emotional assessment elements that assess individuals' self-image concerning their current habits and the scenario without the current habit (Turnbull, 2010). self reevaluation allows the audience to see the potential benefits of behaviour change and the consequences of not taking action (Woods et al., 2002). A positive self-reevaluation inspired by healthy role models and optimistic imagery projections is an excellent strategy to move the audience from contemplation to action (Comber & Thieme, 2013).

2.9.4 Environmental reevaluation

As part of the contemplation process, potential audiences would reevaluate the effects of their unhealthy behaviour on the environment to comprehend how their actions affect others and how they are perceived as role models for others (Borland et al., 2007). The environment here refers to friends, colleagues, relatives, and other persons directly and indirectly affected by their unhealthy behaviour (Brennan & Previte, 2016). For example, in alcohol consumption, alcohol consumers may reevaluate their drinking habits and their effect on families and the community (Pagano et al., 2009). Smokers may also evaluate how their smoking affects others concerning secondary smoking (Macmonegle et al., 2018). Reevaluation also provides the opportunity for an interventionist to reflect on members of the audience as good role models or not (Lockwood et

al., 2002). To get the audience to move from contemplation to action using a reevaluation strategy, empathy training, family involvement, and documentaries may prove to be effective (Duarte, 2013).

2.9.5 Self-liberation

Self-liberation describes a belief system in which the individual has the efficacy to exert changes and the commitment and recommitment to the behaviour change (Dallow & Anderson, 2003). Self-liberation is best manifested through individual willpower, public testimonies, personal resolutions, and multiple choices that drive positive self-liberation (Berry et al., 2005). Empirical evidence suggests that people with multiple choices have better chances of exerting behaviour change through willpower and commitment (see: Ammerman et al., 2017; Duckworth et al., 2019; Verplanken, 2018).

2.9.6 Social liberation

Social liberation requires the provision of social alternatives to the prevailing social environment of unhealthy behaviour (Prochaska & Velicer, 1997). For deprived, oppressed, or marginalised people, social alternatives must amplify the latent and conspicuous benefits of the new changed behaviour in ways that make it challenging to relapse (Prochaska & Velicer, 1997). In health-related behaviours like alcohol consumption and smoking, social alternatives would provide spaces such as anti-smoking areas, non-alcoholic clubs, pubs, and lounges for quitters (Berg, 2016; White, 2001). Strategies that have promoted social liberation include but are not limited to public advocacy, upstream policy formulations and downstream policy implementation, and empowerment strategies such as alternative livelihood provision, education, and better housing (Thøgersen, 2005; Wymer, 2021).

2.9.7 Counterconditioning

Counterconditioning involves the acquisition of new behaviours as a substitute for the old undesirable bahaviour (Lally & Gardner, 2013). Counterconditioning requires unlearning the bad behaviour as a prerequisite for welcoming the desired behaviour (Gucht et al., 2010). Given the prevailing factors in the external environment plus personal factors as inhibitors and promoters, any counterconditioning strategy should include the provision of social alternatives at no cost or reduced cost to echo the benefits and downplay the barriers (Lacroix & Gi, 2020). For every health-related problem, there must be a counteroffer, such as offering non-alcoholic drink assortments as a counter for alcoholic drinks, nicotine replacements for cigarettes, and non-fatty foods replacing fatty unhealthy foods (Berg, 2016).

2.9.8 Stimulus control

The macro-environment provides all kinds of cues stimulating the desire to demand and continuously engage in unhealthy behaviours (Deliens et al., 2014). Stimulus control activity would ensure the elimination or suppression of those stimuli that bait the indulgence of unhealthy behaviours (Schüz et al., 2015) and replace those cues with stimuli that promote the desired healthy behaviour (Vallis et al., 2020). Strategies such as environmental re-engineering (may include banning advertisements of harmful products during prime time), avoidance, and self-assisted groups have proven to be effective in stopping cues that facilitate unhealthy behaviours and promoting cues that enable healthy desired behaviours (Richmond & Ross, 2008; Veer et al., 2019)

2.9.9 Contingency management

Contingency management creates consequences for taking action (Xiao et al., 2004). In social marketing literature, contingency management may include reward and punishment strategies for behaviour enforcement and reinforcements (Brogan et al., 1999). Punishment to deter the performance of unwanted behaviour, and reward to promote the performance of the desired behaviour (Hunt et al., 2017). Studies have shown that self-changer contingency management strategies that use rewards as desired behaviour reinforcement work better than punishments (see: Hunt et al., 2017; Orji et al., 2018; Scott-parker & Weston, 2017). Because the stages of change model rely on the natural ability of the audience to transition to action and maintenance smoothly, contingency strategies such as behaviour performance reward contracts, positive self-statements, group recognition, and both latent and conspicuous reinforcements have been proven to be effective at both the action and maintenance stages (Robson et al., 2015; Strohacker et al., 2014).

2.9.10 Helping relationships

For most health-related behaviours, such as alcohol consumption, the immediate family bears the burden of care and stigma of the behaviour of their relation (Orford, Velleman, et al., 2013). The natural reaction would be to isolate themselves from the individual at the centre of the problem, which unfortunately does not help the cause of rehabilitation through behaviour change (Mallett et al., 2005). Helping relations in the form of close family relations offers the needed social support through openness, care, rapport building, and creating a trust system of sharing confidential information (Hebbani et al., 2020).

2.10 Key assumptions of the stages of change model

The transtheoretical model of behaviour change has seven vital underlying assumptions that drive both research and practice of behaviour change management. The following paragraphs represent each assumption:

Concerning behaviour change management, no single theory or model can explain the complexities of behaviour change. From the continuous research and practice of behaviour management, an integrated, comprehensive approach across significant theories and models would suffice as the best way to tackle any behaviour management issue (Atkins et al., 2017).

Secondly, behaviour change is a series of activities that unfolds over time through different stages of change, with each stage having its unique processes that are benchmarks for measuring the progress of each stage (Samdal et al., 2017).

Thirdly, the stages of change are stable and flexible to the external environment, just as health-related chronic behaviour risk factors are stable and sensitive to the macro environment (Kowalski et al., 2014).

Fourthly, without planned intervention, the audience would remain in the early stages of change management of pre-contemplation and contemplation. Planned intervention would trigger the move from early stages to action. Without deliberate intervention, the audience has little or no motivation to induce self behaviour changes, a replica of individuals' physical and physiological development process.

Most of the population who qualify as at-risk audiences may not be ready and prepared for behaviour change action and might not be moved by conventional action-oriented prevention programmes. However, health promotion can deliver better results from readiness orientation to action stage orientation (Rütten & Gelius, 2014).

In ensuring successful behaviour change management throughout the stages of change, a specific process needs to be applied at each stage while targeting intervention programmes to each unique stage of change to trigger progress to the next stage (Dreibelbis et al., 2013).

Finally, intervention programmes targeted at the specific stage are designed to enhance self-control of the behaviour because most behaviours are within a combination of social, biological, and self-control, reflecting the personal and environmental factors influencing behaviours (Jeon et al., 2014).

2.11 Demographic factors and alcohol sobriety

2.11.1 Age

Age plays a significant role in the life of alcohol consumers (Ahacic et al., 2012). Whether alcohol consumers are classified as alcoholics or frequent heavy social drinkers, the time they started consuming alcohol to their present history with alcohol is essential in determining their reaction to continuing or maintaining their quit status (Zundert et al., 2012). It's envisaged that with time, people with an alcohol consumption history would be influenced by lifetime issues such as health crisis that affects the decision to quit or peer pressure (for younger adults) that encourages continuous indulgence with alcohol (Roper et al., 2018). Older persons engaged in drinking have been shown to have a more extended perception of rejecting the act. They may isolate themselves from social criticisms, which only exacerbates their plight (Jung, 2013). On

the other hand, they may want to seek professional and social (family support) help as a way of a social inclusion strategy (Hogan et al., 2002).

Though not exhaustive, the extant empirical literature in social marketing and addiction studies has reported comprehensive results on the effect of age on alcohol consumption and attempt quit behaviour. Admittedly minor on those in quit or maintenance bevahiour (as seen in the research gaps in the problem statement and empirical literature in table 1). Rosenbloom et al. (2004), for example, in a longitudinal study, found that women who aged with sobriety were better recoverers of their short-term memories and motor skills than younger ones with less sobriety longevity. In a similar longitudinal study, Ahacic et al. (2012) observed contrary evidence when their logistic models indicated age and periods as insignificant in explaining sobriety or abstinence when age cohorts were included. Even though their earlier cross-sectional data shows increasing abstinence with advancement in age, the time element in a longitudinal study showed otherwise. In a recent study, Skewes and Lewis (2016) found old Alaska natives to have higher longevity levels of sobriety than their younger counterparts.

2.11.2 Gender

In alcohol consumption behaviour, men have a higher rate of alcohol abuse than women (Nelson, 2014). Comparatively, 20% of men have alcohol use disorder (AUD), while women have between 7% and 12% (Roerecke & Rehm, 2013). However, women are fast catching up with men in terms of the rate of consumption abuse (Zhong & Schwartz, 2010). Adolescent females between the ages of 12 and 20 have higher rates of heavy episodic drinking and underage drinking than their male counterparts (Zhong & Schwartz, 2010).

Physiologically, because women weigh less than men, alcohol tends to have a higher effect on them than men (Roerecke & Rehm, 2013). Women also tend to have more health consequences even for shorter abuse of alcohol than men (Tuchman, 2014); among the population with AUD, the death rate is 50% to 100% among women than men (Roerecke & Rehm, 2013). Moreover, much of the social risk of alcohol consumption is against women of violent crime and abuse such as rape (García-Moreno et al., 2015). Women are also likely to have unprotected sex, with the risk of unplanned pregnancy and sexually transmitted diseases (Snipes & Benotsch, 2013).

Regarding alcohol abuse recovery and relapse, men are more likely to experience highly intense withdrawal symptoms, while women are more likely to suffer more side effects than men (Tuchman, 2014). Men have longer stay of abstinence than women, while women are likely to experience intense cravings and relapse (Loeber et al., 2006). Prior studies have established the gender differences concerning alcohol sobriety, and as suspected, it reflects the varying nature of gender reactions to alcohol consumption recovery and relapse. For example, a longitudinal study in Spain from 2005-2012 shows different peak seasons for male and female alcohol-impaired driving at sobriety checkpoints (Chuliá et al., 2016). In a seminal study on gender and alcohol sobriety, Mary and Lutz (1991) found significant differences in men's and women's approaches to sobriety. Men cited legal difficulties and societal status as influences for abstinence, while women cited relationship stability as motivation.

2.11. 3 Education

Educational status has long been associated with alcohol consumption, treatment, and recovery, albeit more studies have been called for on sobriety levels (Jones et al., 2015). Studies have shown that alcohol use hinders education attainment (Greenfield et al., 2003), while early consumption of alcohol has been associated with lower educational achievements (Latvala et al., 2014). Education, in essence, is supposed to liberate and make people independent thinkers with critical skills for decision-making (Irandoust, 2021). However, a critical question is whether the educational status of alcohol consumers influences their choices of volume consumed and sobriety maintenance. What is certain is that the lack of education limits audience knowledge and prevents them from seeking treatment (Assari & Lankarani, 2016). The foregone suggests that there could be a link between educational status and an individual's drinking behaviour. For example, studies have found students who are high achievers in high schools and colleges do not indulge in heavy drinking as compared to their counterparts who are not (Acuff et al., 2017; Allen et al., 2020; Patte & Qian, 2017). Therefore, it is plausible to suggest that one's level of education can mitigate alcohol abuse, whereas an increase in school attrition rates of students promotes alcohol abuse risk factors (Assari & Lankarani, 2016).

2.11.4 Income

People with lower income have been generally perceived to consume more volumes and are likely to abuse alcohol (Cerdá et al., 2011); however, several studies have shown that people with higher income consume the same or sometimes more amounts of alcohol than those with lower incomes (see: Cerdá et al., 2011; Kilian et al., 2021; Sharma et al., 2017). Due to the

purchasing power parity of high-income earners, they are likelier to engage in frequent drinking and consume a variety of alcoholic beverages than those with lower incomes (Sharma et al., 2017). High-income earners are triggered into frequent alcohol consumption, most often by their extensive social connections (Murakami, 2019). They respond to corporate and personal social events to keep up with their social and business networks, and alcohol as a bonding element will always be present (Charman et al., 2014). High-income earners are equally tempted into frequent drinking by their socially solid networked neighbourhoods through recreational sports, leisure centers, and social events (Pedersen, 2017). Even though the phenomenon of high-income earners drinking more than low-income earners might appear odd (at least given the association of frequent drinking to poverty-linked depression), it is made more apparent when we consider that 20% of the alcoholic population identified as high-income earners uses their high status as a cover-up for their habits (Cerdá et al., 2011).

Compared to high-income earners, low-income earners tend to drink less but have high alcohol mortality and morbidity rates. These can be attributed to their inability to afford legal alcohol but have to make do with those brewed illegally, which most often have been identified to be hazardous (Allen et al., 2017). The problem is further confounded by their inability to reaccess health care due to their low incomes (Anderson et al., 2017). While high-income earners, in most cases, drink to socialise and network, low-income earners drink to suppress their stress from the pressures of life (Jones & Sumnall, 2016). By extension, alcohol consumers undergoing recovery and change maintenance would largely depend on their income levels and that of loved ones for funding (Koffarnus et al., 2021). Inadequate resources, including money to support the quit behaviour may offer a gateway to relapse through stress (Chen et al., 2015).

2.11.5 Employment status

The employment status of people makes a significant difference in their alcohol consumption and subsequently quit behaviour (Beard et al., 2019). Being employed and staying in employment provides more than just income security; it provides a social network of friends and colleagues who can share and support each other's emotions in good and bad times (Brooks et al., 2017). Employment provides basic needs, self-determination, and relatedness (Brooks et al., 2017). Employment might provide some psychological need for support and stability, especially for those entering into recovery and behaviour change maintenance (Eddie et al., 2020). Long-term recovery, the basis for change maintenance, has been suggested to be possible through employment enhancements for that audience under recovery and maintenance (Eddie et al., 2020).

Previous studies have established the efficacy of employment before entering into recovery and maintenance as a predictor of successful completion of the programe. For example, recoverers in employment were more likely to complete than those that were not. Conversely, those not employed were less likely to complete and sustain the recovery programe (see: Brendan & Lê Cook, 2013; Demir et al., 2021; Hansen et al., 2020; Sánchez et al., 2019). Enhancements in the employment of recoverers have been proven to enhance the propensity to finish the programe and hold the gains of behaviour change (Sánchez et al., 2019). The prospects of hope, stability, and certainty brought about by employment, and its enhancements serve as a catalyst for behaviour change sustenance (Haberecht et al., 2018).

2.11.6 Marital status

Like employment status, marital status (whether married, single, or co-habitation) provides the social support needed during the behaviour change (Liew, 2016). The consumer's spouse first feels alcohol consumption abuse and its effect before external relations are indulged (Soares et al., 2016). The effects of alcohol abuse have an enormous strain on marital relationships through rape, domestic abuse, and sometimes violent behaviour (Rodriguez et al., 2014). Single individuals may find the behaviour change process and sustenance of sobriety a daunting task due to the absence of a close significant other to provide that needed social support (Roesch-dietlen et al., 2021). The benefits of social support throughout the stages of change are fundamental in preventing relapse at any stage (Atadokht et al., 2015). Audiences require instrumental and emotional support systems such as those provided by Alcohol Anonymous (AA) and other abstinence-based support systems to aid change sustainance (Stevens et al., 2014).

Social support is crucial, especially among those highly dependent on alcohol, given the context that such populations historically have smaller diversity and social network size due to the stigma attached to the behaviour (Dingle et al., 2015). Besides, empirical evidence shows that perceived lower levels of social support increase consumption rates and encourage relapse from sobriety (see: Atadokht et al., 2015; Brooks et al., 2017; Drivers et al., 2019). Alcohol Anonymous (AA) has practically demonstrated the relationship between social support and sobriety maintenance through its abstinence-oriented self-help programes (Brooks et al., 2017). Individuals in healthy relationships such as marriage tend to cope better and have a higher chance of sustaining sobriety in the long term than those in abusive relationships or living alone (Mccrady et al., 2021).

2.11.7 Social consumers, alcoholics, and longevity of sobriety

Social drinking is the casual consumption of alcohol in a social setting, such as parties and corporate hangouts (Chrzan, 2013). In the social setting, alcohol tends to be the primary binding ingredient that keeps everyone relaxed and engaged in more conversation due to alcohol activating dopamine in the brain (Grant et al., 2013). In some instances, social consumption tends to go over the top, with people drinking to the state of inebriety (Charlton & Starkey, 2015). The phenomenon of drinking more in a social setting over time may pose a risk of developing into a habit of daily drinking, which may lead to alcoholism (Creswell, 2021)

For an audience in a consumption quit situation looking forward to sustaining sobriety, their former status as social consumers or alcoholics has a significant role in deciding to be sober for the long term (Hibbert & Best, 2011). Former social consumers may, for example, in a quit behaviour be more tolerant towards an environment that tempts them to relapse than frequent daily consumers (alcoholics) due to the lingering social support they enjoy (Best et al., 2011). Again, former social drinkers in a quit situation may be malleable to relapse because the situation leading to the decision to quit may not be life-threatening, and they suffer from social isolation or economic ramifications (Nikmanesh et al., 2017). On the other hand, alcoholics usually decide to quit due to social, economic, and health crisis pressures (Paswan et al., 2015). Therefore, the ability to sustain sobriety hinges on the circumstances that lead to quitting consumption, so the more severe the circumstances, the higher the resolve to sustain long-term sobriety to avoid social exclusion and financial and health stress (Burhanoglu et al., 2014).

2.11.8 Ethnicity and sobriety of longevity

Ethnicity and alcohol sobriety have been widely discussed in the extant social marketing literature mainly due to their inherent role in underlying cultural undertones that affect social cohesion (Skewes & Lewis, 2016). There has been, for example, the ongoing debate on the varying ethnic group's ability to influence group behaviour about alcohol consumption and the reasons certain ethnic groups tend to do better in that aspect than others (Brown et al., 2014). There is also the issue of the growing disparity in healthcare-seeking behaviour and access among different ethnic groups in dealing with the issues of alcohol consumption (Pouille et al., 2020). The cultural undertones of ethnicity speak directly to the ethnic group's organisational abilities to keep members in check using the social group norms (Gustafsson et al., 2021). These ethnic group dynamics also reflect the strengths and weaknesses in the character traits of the groups, thus making it possible to predict all the behaviour nuances associated with the ethnic group (Roland & Kaskutas, 2002).

Ethnic groups that are, for example, organised in a low individualism versus collectivism (IDV) cultural environment tend to bond more and may appear to offer adequate social support as a sign of strength (Jason et al., 2018). On the other hand, those organised by high IDV cultures do not appear to have a close-knitted social support structure. While this might be an advantage in some instances, it may be a disadvantage in dealing with social problems such as sobriety maintenance (Orford et al., 2013). Africans and Asians have been observed to be organised in a low IDV cultural setting where the extended family plays a vital role through its extensive social support networks (Delker et al., 2016). Caucasians, on the other hand, place more emphasis on the immediate family as a unit and less on the extended family system through its high IDV

system. Ethnic groups with low IDV tend to handle social crises better than those with high IDV due to strong social networks (Delker et al., 2016).

2.12 Lifestyle segments in health behaviour change

Segmentation in social marketing has become imperative due to varying audience characteristics and resource limitations (Dietrich et al., 2017). Social marketers must divide heterogeneous groups into homogenous groups with similar traits and characteristics for effective intervention planning, targeting, and positioning strategies (Djokic et al., 2013). Segments are conventionally formed based on behavioural, psychographic (lifestyles), demographic (biological, socio-economic traits), and geographic characteristics (Goyat, 2011). In segmentation execution, the primary responsibility is to identify the nature and size of the segment that requires resource commitment using its measurability, actionability, and accessibility criteria for deciding to commit attention (Tkaczynski et al., 2018). After the segments are identified, social marketing mixes such as product, price, promotion, and placements can be applied for behaviour change (Lahtinen et al., 2020).

After Demby (1974) coined the term "Psychographics" by combining psychology and demographics to reflect individual social choices, activities, and interests, its application has undergone two waves. The first application was based on personality profiles using the popular Edward's Personal Preference Schedule personality profile to define homogenous sub-markets (see: Alpert & Witt, 1973; Horton, 1974; Tynan et al., 2010). Even though many scholars have extended interest in personality trait studies, it has been criticised for their inconsistent association with most consumer behaviour traits (Liu et al., 2019; Vyncke, 2002). In the second application of psychographic research, the personality trait profile was replaced with the "lifestyle profile" (Vyncke, 2002). Lifestyle is conceptualised in contemporary terms as how

people live and spend their money and time (Akkaya, 2021). Therefore, lifestyle research helps us understand the reasons and motivations for taking specific actions (H. Liu et al., 2019).

The psychographic concept presents two main approaches to lifestyle evaluations. Firstly, the Activity Interest Opinion (AIO) approach conceptualises lifestyle as “how people conduct their lives, including activities, interest and opinions” (Peter & Olson, 1994 pp.463). Activities involve actions that can be seen as attending social activities, hobbies, work, shopping, clubs and associations, community engagements, and sports. Interest is shown through attention and commitment to media, sports, family, work, fashion, food, and profession. In contrast, opinions are exhibited by describing one's belief on social issues, government policies, education, and economics (Farina et al., 2016).

In the second approach, the value system replaced the AIO approach. Values have been conceptualised as desirable, trans-situational goals ranked in order of priority and as guiding posts in people's lives (Vyncke, 2002). The Rokeach Value Survey (Rokeach, 1973) has provided the seminal basis for measuring individuals' value systems for homogenous market segmentation. Despite the seminal contribution of Rokeach (1973), other scholars who critiqued his list of items have contributed shorter and improved versions of survey instruments measuring value systems. For example, Kahle and Chiagouris (1997) suggested a List of Values (LOV) with only nine items. Schwartz and Bilsky (1990) also initially developed scales for value system measurement, later modified by Schwartz (1992) to include 56 values. Indeed, values have been identified to affect a wide range of behaviours across various scenarios (Schwartz, 1992). Values are also crucial determinants of lifestyles because they affect how individuals perceive the world and react accordingly (Vyncke, 2002).

Admittedly, there seems to be a lack of research in health behaviour lifestyle segmentations and behaviour change maintenance. However, few studies below have attempted to throw more insights into lifestyle segments in health-related behaviour change.

In a study to establish market segments in the planning and execution of health education, Slater and Flora (1991) used health and safety-related behaviours such as seat belt usage, vitamin C usage, health information usage, vigorous exercise, and moderate exercise execution. Seven (7) lifestyle patterns (clusters) were identified: healthful adults, unhealthful adults, worried older adults, healthful talkers, healthful young adults, unhealthful young adults, and young athletes. According to Slater and Flora (1991), three clusters, unhealthful adults, worried adults, and unhealthful young adults, were identified for health education intervention because they showed enough basis for behaviour change inaction.

In a well-being tourism context, Konu (2010) found six AIO lifestyle segments, which include sports and nature people interested in technology, home-appreciating travelers, family and health-oriented sport and nature people, appreciative culture self-development, material well-being appreciative and indifferent about traveling and social issues among potential finish well-being tourist. According to Konu (2010), these lifestyle segments provide the basis for designing well-being tourism strategies, such as designing and promoting a home-feel destination or incorporating well-being elements into tourist destinations. In a recent similar study, Weber et al. (2020) identified three lifestyle clusters of older adults' online health information-seeking behaviour. The hierarchical cluster analysis based on values, interests, and leisure time activities showed the sociable adventurer, the average family person, and the uninterested inactive as clusters predicting adults' internet health information-seeking behaviour. According to Weber et al. (2020), the average family and the friendly adventurer tend to use the

internet more in seeking health information, thus making these unique clusters basis for understanding insights into some health-related behaviours and where to focus intervention attention.

2.13 Market actor's influence on alcohol policy

The alcohol industry has learned from the pioneering work of the tobacco industry in strategies and tactics for influencing the market and government policies (Hawkins & Holden, 2017). Just like the tobacco industry, the alcohol industry uses a plethora of strategies, including the lobbying of policymakers and government officials, the formation of trade associations and activist pressure groups, and the funding of political activities (Hawkins & Holden, 2013). Like in the tobacco industry, the alcohol industry has, over the years, influenced the perceptions of policymakers and the public on the harmful effects of alcohol use by positioning the scientific debate in line with their interest (Bero, 2003; Hurt et al., 2009). The arm of alcohol manufacturers has further strengthened through the co-ownership of alcohol-producing firms that allows the sharing of industry knowledge and consolidation of the strength of producers (Bond et al., 2010; Hawkins & Holden, 2013).

Beyond the activities of lobbyists and pressure groups, Miller and Harkins (2010) posit that owners of alcohol brands have found new ways of influencing the information environment through communicative strategies that influence the narratives about the harmful effects of alcohol use, thus setting the agenda on discussions on the effects of alcohol. This strategy through the media (both traditional and social media) courts public sympathy and seeks to influence societal perceptions and the attempt to regulate alcohol marketing activities (Miller & Harkins, 2010). According to Miller and Harkins (2010), a plethora of evidence exists to show that the alcohol industry uses the media, activist civil society groups, and some elements in the

scientific community to influence the public debate on the harmful effects of alcohol. The following discussions review market actors and their influences in the South African alcohol industry.

2.13.1 The producers

In South Africa, the SAB and Miller Breweries merged to become SAB Miller. SAB Miller became the market leader (Bertscher et al., 2018). With an annual advertising budget of R1.7 billion, the industry is set to play an influential role in the market by affecting perceptions and regulations such as the Control of Marketing of Alcoholic Beverages Bill (van Walbeek & Daly, 2014). It's worthy of note that the consolidation of the leading alcohol brands in South Africa has also meant that they become a powerful economic union backed by their vast financial muscle to act as a pressure group in shaping and influencing government policies (Bertscher et al., 2018). In the peak of the Covid 19 lockdowns in South Africa, these industry players, such as the Beer Association of South Africa (BASA), were heard and seen loudly in advocacy and lobbying activities to have the lockdown restrictions eased due to its economic toll on their business (Ngqangashe et al., 2021).

2.13.2 Distributors

The power of distributors as important market actors cannot be overlooked. Distributors are vital bridges between the customers and the producers and are seen as the final executioners of the marketing activities from production, pricing, and promotion (Jernigan & Ross, 2017). The power of distributors is evident in their numbers and clusters. Current data from the National Liquor Traders Council and the Liquor Traders Association of South Africa shows a coalition of 4,000 bottle stores and 1,400 retail outlets represented by Spar, Pick n Pay, and Shoprite across

South Africa (Charman et al., 2013). These liquor traders' unions employ 282,000 workers across 250,000 South African taverns (Charman et al., 2013). These distributors acting as downstream agents of the big alcohol brands use their shared economic influence in employment and revenue generation to influence government policies and society's perceptions of the harmful effects of alcohol use (Savell et al., 2015). The distributors use their proximity to customers to generate consumer behaviour insights that sustain customer interest in their brands (Vigario, 2019).

2.13.3 Media

With the continuous growth of the advertising budget, alcohol beverage firms in South Africa have utilised the media to control the information environment concerning the harmful effect of alcohol (Delobelle et al., 2016). With the media landscape outgrowing traditional media of TV, Radio, and billboards to new media such as social media mediums like Facebook, Instagram, Snapchat, and Twitter, alcohol brands have found new ways of circumventing regulations around the marketing and promotion of alcohol during prime times (Atkinson et al., 2017). Social media thus affords alcohol brands with innovative opportunities to target young people and recruit them early through direct message targeting, using their online usage behaviour (Niland et al., 2017).

The effect of alcohol advertising on different media channels on alcohol consumption, especially for young people, is well documented (see: Atkinson et al., 2017; Niland et al., 2017; Morojele et al., 2018). These adverts' content often ascribes appealing alcohol images to good times, youthful, hip, or relaxed lifestyles, friendship, and success (Padon, 2014). These deliberate brand association with positive appeals and emotional strategy has successfully recruited young people to early drinking (15 years and older) and encouraged continued use of alcohol (Ross et al.,

2014). Indeed, most alcohol brands craft and design specific generational or inter-generational adverts that appeal to and court the indulgence of the respective target (Lim et al., 2017).

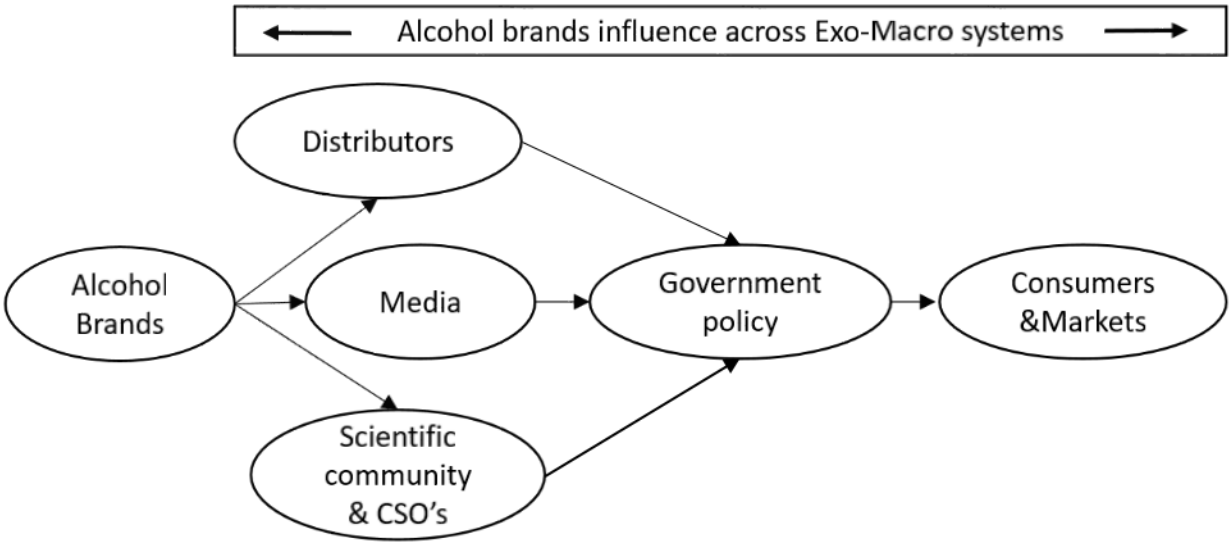
The media is also largely influenced by the trappings of the big players in the alcohol beverage industry in South Africa through the continuous expectation of advertising business that profits the media entities (Zerhouni et al., 2019). This situation makes it easy to understand why most media outlets would quickly become advocates for the alcoholic beverage industry in South Africa. Indeed, only a few would promote discussions on the harmful effects of continuous alcohol use (Lawhon & Herrick, 2013). Most media houses are forced to respond to these needs in the form of corporate social responsibility (CSR) through pressure from government regulators and civil society organisations (CSOs) in the social work, public health, and social marketing space (Delobelle, 2019). The response of the government was to introduce the Control of Marketing of Alcoholic Beverages Bill, to which the industry has responded accordingly through the commissioning of a comprehensive report that shows the ramifications of such a regulation (Bertscher et al., 2018). The report mainly distinguishes between above-the-line and below-the-line advertising. It makes economic arguments in favour of the industry's advertising activities, and how direct and indirect jobs and government tax revenues would suffer if these regulations were pushed through (Bertscher et al., 2018).

2.13.4 Scientific Community and CSOs

Independent watchers have observed increasing trends in scientific community engagement in alcohol-related research, which is not mainly directed at exposing the harmful effects of alcohol misuse (McCambridge & Mialon, 2018). Aided by funding from alcohol beverage producers, these scientific communities work under the guise of corporate social responsibility, public health interest research, and corporate citizenship to promote research output that pushes

the agenda of big alcohol brands to buy societal support and keep regulators away (Babor, 2009). Because these scientific outputs come from established academics and experts, they tend to have what has been termed as expert credibility, hence reducing the doubts about the results and increasing the level of believability, which has long-term consequences for consumers and the markets (Yeomans, 2013) (see fig 3). The conflict of interest situation in this scenario is traced to the source of research funding, creating an ethical dilemma of reporting their findings accurately and pleasing the funders by not disseminating information that erodes business gains (Andréasson & McCambridge, 2016). Another crucial ethical issue is using scientists as public relations in conveying the message of an excellent corporate citizen in alcoholic beverage firms for supporting research in dealing with the harmful effects of alcohol (Legg et al., 2021).

Fig 3: The Influence of Alcohol Brands



Source: Adapted from Brennan et al. (2016)

Then there is the issue of the growing phenomenon of socially oriented Civil Society Organisations (CSOs) funded by big alcohol beverage firms playing social advocacy roles in

both upstream and downstream social marketing activities (Milsom et al., 2022). These social interest organisations focus on and cover the entire alcohol beverage industry, from wine, spirits, and beer. They appear to be mainly concerned with the social and economic ramifications of alcohol use and advocate for the responsible use of alcohol (Ndinda et al., 2015). Indeed, these CSOs have been identified to play dual roles of heavily doing Public Relations (PR) for these big alcohol brands while educating and advocating for responsible alcohol use, as evidenced in their mandate (Smith et al., 2016).

In essence, these organisations are funded to present favourable reports and advocacy on the efforts being made by these alcohol brands in addressing the social and economic cost of the harmful effects of alcohol (Milsom et al., 2022). These CSOs deploy strategies such as becoming members of non-alcoholic boards and committees of organisations to influence alcohol-specific policies, hosting academic and policy conferences, promoting high-impact research, and building and promoting consensus around alcohol policy issues through upstream and downstream advocacy and lobbying activities (Morojele et al., 2021).

2.14 Demarketing alcohol consumption

Demarketing is a social marketing concept that explains the efforts made by social marketing experts, government regulators, and players in the alcohol beverage industry through the deployment of social marketing activities such as providing incentives for new desired behaviours (Product), reducing the cost and barriers of reaching goals of the new desired behaviour (Pricing), creating awareness and education on the benefits of the new behaviour against the harms of the old behaviour (promotion) and lastly providing spaces where the desired behaviour can be natured and encouraged to grow (Placements) (Yang et al., 2013). Classically, demarketing describes how marketing activities deal with total demand such that those demands

exceed the motivation levels the marketer can no longer supply (Kotler & Levy, 1971). Demarketing, therefore, discourages targeted customers from undertaking certain behaviours (Wall, 2007).

In South Africa, the legal framework providing the context for de-marketing alcohol consumption is the Control of Marketing of Alcoholic Beverages Bill (Morojele et al., 2018). On September 18, 2013, the South African Cabinet approved the Bill to restrict the marketing of alcohol in South Africa (Matzopoulos et al., 2020). With regards to demarketing activities, the Bill increases the legal drinking age from 18 to 21years, banning of alcohol advertisements on social media and prime time on traditional media (TV and Radio), provisions of new liability clause for alcohol retailers and distributors, setting a 100 metre radius trade limitation around educational facilities and the introduction of alcohol pricing based on the percentage volume (Matzopoulos et al., 2020). Although Wall (2007) argues that most government-led demarketing efforts in alcohol consumption are mainly ineffective, some specific strategies, such as using label information to warn about irresponsible alcohol consumption, using locally set codes of conduct of alcohol sales and consumption enforced by law enforcement agencies; extending anti-social behaviour fines; enforcing under age drinking rules more effectively and creating alcohol awareness program for schools through clubs have proven to be effective (Chaudhry et al., 2019).

2.15 Systemic structural support for alcohol quitters

The harmful effects of alcohol consumption have had and continue to have a national effect on most nations' public health infrastructure and budgets globally (Matjila et al., 2021). The national burden has meant that nations across the globe need to respond with adequate infrastructure and national treatment policies as a framework for dealing with alcohol quitters (Laudet & Humphreys, 2013). For the most part, most countries have legislative frameworks on alcohol and drug treatments and the establishment and management of treatment and recovery centres whether these public or private treatment centres are regulated mainly by the same regulatory framework (Balhara & Singh, 2020).

In South Africa, the National Council on Alcoholism and Drug Dependence (SANCA) was established in 1956 to respond to the growing alcohol and drug-related problems in the country (Arina, 2019). Since its inception, SANCA has been established throughout the main cities in South Africa, translating to one centre in every province (Arina, 2019). SANCA, registered as a Non-Governmental Organisation (NGO), provides education service delivery centers and heavily subsidised treatment centres across established South African clinics (Nzama & Ajani, 2021). SANCA also provides information services outlets on the effects of the harmful use of alcohol in deprived communities in South Africa (Nzama & Ajani, 2021).

In 2016, the Department of Social Development conducted a nationwide audit of in-and-out patient substance treatment centres throughout South Africa (Department of Social Development, 2016). The main objective of the audit was to ensure compliance with the prescribed legal framework in the Prevention and Treatment for Substance Abuse (Act No.70 for 2008) for managing treatment centres across the country (Department of Social Development, 2016). According to the dictates of the Act, no person or organisations shall establish and operate

a treatment facility unless it has satisfied all regulatory requirements (Department of Social Development, 2016).

The existing treatment facilities are a mixture of government and privately funded establishments with eight (8) public in-patient treatment centres spread across South Africa. Western Cape has 3, Kwazu Natal has 2, and Mpumalanga, Gauteng, and Limpopo have 1, respectively (Department of Social Development, 2016). There are also well-established rehabilitation centres dotted across the country. These rehabs come in the form of public and privately managed centres. However, public rehabs are funded mainly by the state, whiles private centers receive funding from individuals and other well-meaning organisations through their corporate social responsibility initiatives (CSR) (Isobell et al., 2018). Sadly, most state-owned managed rehab centers are poorly managed, often creating negative perceptions about their ability to deliver quality treatment programmes to recovering alcoholics (Isobell et al., 2018).

Because social support is crucial in managing health-related behaviour change (Brooks et al., 2017), groups such as Alcohol Anonymous (AA) and other allied groups have centres and meeting places all over the country to help alcoholics overcome consumption using their tried and tested 12 step behaviour change programme with a strong emphasis on spirituality, community, social bonding, storytelling, and testimony sharing strategies (Greenfield & Tonigan, 2013)

2.16 Empirical literature summary

The lack of research depth on alcohol quitters' behaviour, especially within the ecological system in which they live, is further highlighted by the empirical literature on the subject matter within the last decade of 2012 to 2022. As illustrated in Appendix 4, the last decade of research on alcohol behaviour has leaned towards change initiation efforts and not maintenance. These change initiation studies came in different forms, such as reduction in consumption rates and social marketing campaign strategies targeting alcohol marketing and consumption (see: Fry, 2014; Lumb, 2020; Rundle-Thiele et al., 2013; Watakakosol et al., 2020)**.** Some studies, however, came close to addressing behaviour change maintenance issues. These studies looked at the scoping long term health-related behaviour change using self-help strategies as maintenance tools, taking a longitudinal outlook on quitters' usage of self-efficacy and motivation in change maintenance management and the interpersonal and intrapersonal factors involved in the maintenance of changed behaviour (see: Bishop, 2018; Van Dyke, 2013; Müller et al., 2019)

The rest took on a macro marketing perspective on alcohol consumption behaviour that includes; the effects of alcohol de-regulation on consumption levels, investigating demographics amenable to alcohol intervention policies, contextualising alcohol policy against a global policy strategy, and examination of the effect of alcohol pricing on consumption patterns (see: Casswell et al., 2016; Kaewpramkusol et al., 2019; Parsons & Stephenson, 2013; Stafström & Östergren, 2014). The empirical literature shows the attention span of social marketing scholarship over the last decade on alcohol consumption behaviour. A critical population gap of alcohol quitters have been neglected in these studies; therefore, the need to focus on them to sustain the gains made from behaviour change initiation efforts.

2.17 Hypotheses development

2.17.1 Self-Concerns and Change Initiation

Self-concern is one of the intrinsic sources of motivation for the individual when quitting an unhealthy habit such as drinking (Pope et al., 2018). Self-concern has been conceptualised as the individual's psychological well-being and has been identified as a crucial element that creates a desire for alcohol consumption behaviour change (Amodeo & Kurtz, 1990; Curry et al., 1990; McBride et al., 1994). Self-concerns find expression in the often negative self-image brought by the consumption of alcohol so that the desire to reclaim that positive self-image leads to behaviour change initiation (Pantalone, 2013). Most people on substance abuse often have concerns about the direction of their life, which is often unstable due to their inability to control substance use (Ugochukwu et al., 2013). They need to bring their lives back on track and find the purpose and motivation that drives the desire to initiate behaviour changes (Denzin & Johnson, 2017).

Even though there are limited studies on self-concerns and change initiations, few existing studies have linked self-concerns with behaviour change initiation with underlying factors such as self-image and life purpose concerns. For example, McKay et al. (2012) linked self-concept to decisions to reduce, increase, or quit alcohol consumption entirely. Similarly, Piquero et al. (2002) found a significant relationship between low self-control and an increase in binge drinking and antisocial behaviours, implying that the awareness of the havoc of low self-control can trigger behaviour change action. Recently, Andrew et al. (2016) also found that a positive self-image was associated with women making health-related behviour changes such as seeking routine medical checkups, weight loss, and alcohol consumption reductions. In contributing to growing empirical literature in social marketing,

this study posits that self-concerns for most alcohol users would drive them to initiate behaviour changes hence hypthesised that:

H_1: Self concerns has a significant positive influence on behaviour change initiation.

2.17.2 Health Concerns and Change Initiation

Health reasons have long been associated with changing alcohol consumption habits (Davies et al., 2017). For many alcohol consumers, the main reasons for quitting are alcohol-related health issues resulting in incapacitation or poor health and physicians' advice on the harmful effects of continuous alcohol use (Davies et al., 2017). The natural association of health concerns and behaviour change initiation has its roots in the idea that poor health is a causative factor of most deaths and an inhibitor of healthy lifestyle longevity (Ayuka et al., 2014).

A recent study by Caluzzi et al. (2021) shows that the population of young people changing and abstaining from alcohol consumption is related to their desire to avoid alcohol-related health crises and pursue healthy lifestyles. Earlier, Pettigrew et al. (2014) found that cancer warning labels warning consumers about the dangers of alcohol causing cancer was perceived favourably by consumers as enough grounds to trigger behaviour changes in consumption. The actual or perceived alcohol-related health issues should drive consumers to change, especially if they threaten their existence and livelihoods (Moussaoui et al., 2021). This study takes the view that health concerns as an intrinsic motive for health-related behaviour change would naturally affect change initiations and hence hypothesised that:

H_2: Health concern has a significant positive influence on change initiation

2.17.3 Social influence and change initiation

Social influence has its roots in the relationships and associations formed through the socialisation process (Matjila et al., 2021). It has been conceptualised as the influence exerted by close relatives and associates, such as friends and work colleagues, on an individual social and professional setting (Prestwich et al., 2016). The extant literature has reported social influence as an essential predictor of health-related behaviour change (Bodnár et al., 2021; Salvy et al., 2014; Simons-Morton et al., 2016). Because the family and other close associates of the alcohol consumer traditionally bears the brunt of economic and social care of the consumer's drinking problems, consumers often refer to them as important reasons to change behaviour (Orford et al., 2013). Loved ones who are aggrieved with the drinking behaviour of their relative or spouse lead to strained relationships and sometimes divorce or separation in marriages, thus affecting the social cohesiveness of relationships (Haverfield et al., 2016).

Empirical evidence shows that the desire of most alcohol users to change the tag of a "drunk" or "alcoholic" as seen by close relatives and associates leads them to make drastic behaviour changes (see: Bischof et al., 2016; Crane & Easton, 2017; Hill & Leeming, 2014; Orford et al., 2013). The forgone statement implies that dysfunctional or intact relationships are crucial in providing some social safety net and assurances for the alcohol consumer's journey toward behaviour change in line with social norms (Bodnár et al., 2021). Prestwich et al. (2016), for example, found changes in social influence to influence changes in alcohol consumption significantly; however, normative beliefs regarding others' consumption rates can effectively alter positive behaviour changes. This study believes that social influence would follow the trend in previous studies and hence hypothesised that:

H_3: Social influence has a positive influence on change initiation

2.17.4 Situational influence and change initiation

Situational influence has been concepualised in the extant literature as the existing condition(s) in which the alcohol consumer finds his or herself due to continuous indulgence in excessive harmful alcohol use (Curry et al., 1990; McBride et al., 1994). These situational factors have been empirically established as predictors of behaviour change initiations (Gold et al., 2020; Lechner et al., 2021; Wray et al., 2014). The consequences of continuous use of alcohol have caused some situational factors, such as financial issues due to increased expenditure on alcohol, unstable or lost employment, absenteeism, and lateness (Liira et al., 2016). In some cases, continuous law infractions about drunk driving and domestic abuse and the provision of new opportunities, such as new employment, sped up the behavior change process (Hatcher et al., 2014; Stanojević et al., 2013).

According to Ferrie et al. (2002), chronic job insecurities and changes in job insecurities majorly affect health behaviours. People naturally react negatively to such threats; hence the need to avoid such negative situations drives them to make positive behaviour changes. Similarly, in a recent study, Geisner et al. (2018) established that full-time employment was related to increasing consumption of alcohol so that when the consumption behaviour becomes a threat to the sustenance of the employment, it will trigger behaviour changes. Setlalentoa et al. (2010) also found that the threat of marital dysfunction as a result of divorce by a spouse remains an essential indicator for making behaviour changes. In this study, situational influences are believed to drive alcohol consumption behaviour changes hence hypothesised that:

H_4: Situational influence has a positive influence on change initiation

2.17.5 Alcohol Product Branding and Change Initiation

Brands, at their basic level, represent the firm's value propositions (Keller & Lehmann, 2006). From the customer's perspective, brands make differentiating between products easier, promoting trust and authenticity and communicating risk reduction (Keller & Lehmann, 2006). Alcohol brands, like other brands, also create imagery of their products representing different consumer aspirations, therefore positioning themselves to align with the self-aspirations and self-concept of consumers (Dube, 2020; Wilkie & Rao Hill, 2022). Alcohol brands, again through brand association, present and communicate their brands through different consumer lifestyle segments such as corporate, socialites, matured and authentic, young energetics, and classy and elegant groups (Liu et al., 2014). These lifestyle segment brand associations offer alcohol brands the opportunity to do targeting with promotion and pricing (Dibb, 2017).

Because alcohol brands generally find ways of representing consumer aspirations and lifestyles, they create top-of-the-mind awareness in the minds of target consumers, thereby creating brand loyalty for repeated purchases (Ameyibor et al., 2022; Norris et al., 2021). Prior studies have shown how alcohol brands have created loyalty and repeated purchases. For example, in an expert opinion commentary, Casswell (2004) noted that young people's consumption patterns are significantly altered by marketing activities such as alcohol branding targeted at their lifestyles. According to Jernigan (2010), alcohol brands extensively positioned themselves as representing young people's aspirations as a strategy to cultivate a cult brand following. Alcohol brands would continue to attract consumers' attention even if they attempt to quit drinking. This study therefore hypthesised that:

H_5: Brands have a significant positive influence on change initiation

2.17.6 Alcohol Pricing and Change Initiation

Historically, pricing as a marketing tool helps to attract the properly targeted market segment and communicates quality and market position (Alpert et al., 1993). Alcohol pricing at the macro level has also been used to reduce consumption and prevent anti-social behaviour (Chaloupka et al., 2019). Increasing taxes on alcohol, which affects the unit pricing of alcoholic products, has been a popular strategy by governments to reduce alcohol consumption (see: Chaloupka et al., 2019; Sacks et al., 2021; Wall et al., 2018). Perhaps pricing policies as a deterrent or a consumption control measure only become effective in preventing those within low-income brackets from accessing the product but not enough to stop high-income earners from indulging in consumption (Wall et al., 2018). As a consequence of such pricing policies to control consumption, locally cheap, unsafe brewed alcohol seems to emerge to fill the gap of the price hike policies (Parsons & Stephenson, 2013).

To a large extent, these pricing policies through increased taxation have worked to stem the tide in consumption patterns. For example, Jiang et al. (2020) found that an increase in alcohol tax, which increased market unit pricing, reduced consumption rates across various subpopulation groups. Interestingly, as a uniform tax rate and pricing reduced consumption among low-income earners, it was insignificant in changing consumption patterns among high-income earners (Jiang et al., 2020). Similarly, Sharma et al. (2017) concluded that alcohol tax and pricing policies have varying effects on different segments of consumers; however, their overall effect reduces overall consumption. In this study, alcohol pricing is used within the context of the current tax and market unit pricing and hence hypothesised that:

H_6: Pricing has a significant positive influence on change initiation

2.17.7 Alcohol Promotions and Change Initiation

Alcohol promotions have been conptualised as any form of activity that extends the invitation for indulgence using any promotional tactics as an incentive to create awareness, purchase, and consume alcohol products (Christie et al., 2001). Alcohol promotions include advertising, sponsorships, sales promotions, public relations, and direct marketing (Ghidey, 2021). Advertising appears to be the most popular of all the promotional elements due to its popularity daily (van Walbeek & Daly, 2014). Sponsorships, sales, and direct marketing of alcohol have, however, been very active in circumventing regulations and recruiting young consumers through sponsoring school programes, sports, and entertainment (Gee et al., 2016). Social media has become a significant enabler due to the use of consumer analytics to do direct marketing and sales promotions based on historical online behaviour (Atkinson et al., 2017).

Prior studies have established the effects of alcohol advertising on consumption patterns. Ross et al.(2014) found advertising exposure of specific alcohol brands to increase the consumption of the same brand among young people. Similarly, Matjila et al. (2021) observed that advertising exposure significantly affected alcohol consumption. Nelson (2010) found that alcohol advertising bans do not prevent increased consumption rates, thus further highlighting the effects of other forms of promotions, such as sponsorships, which are often off the radar of regulators. This study believes that alcohol promotions in its various forms are likely to encourage more consumption and tempt those attempting to quit and abstain from consumption hence hypothesised that:

H_7: Promotions have a significant positive influence on change initiation

2.17.8 Alcohol Placements and Change Initiation

Alcohol distribution concerns the wholesale and retail end of the marketing chain, where alcohol is made available or easily accessible to the consumer (Conlon & Rao, 2015). Alcohol availability is measured by proximity to retail stores, vending machines, and restaurants and pubs where alcohol can be dispensed (Ellaway et al., 2010). Indeed, in some cases, poor neighbourhoods tend to have more alcohol outlets than less deprived ones. The density of these outlets has been linked to neighbourhood deprivation, increased consumption patterns, and alcohol-related outcomes (Ayuka et al., 2014). Empirical evidence shows increased alcohol outlet density is associated with drunk driving and domestic violence in the area where the outlets are concentrated (Fone et al., 2016; Gmel et al., 2016).

Subsequently, prior studies also show that reducing alcohol outlets within a specific enclave reduces consumption rates and its antecedent outcomes (Campbell et al., 2009; Livingston et al., 2007; Pollack et al., 2005). It has become increasingly clear that alcohol availability density is linked to increasing deprivation in neighbourhoods, encouraging more consumption with its attendant social consequences (Ayuka et al., 2014). In a South African context where alcohol outlet density is high in most neighbourhoods, alcohol distribution would continue to influence consumption patterns and offer a certain level of temptation to those attempting to change behaviours and maintain same. From the foregoing this study hypothesised that:

H_8: Placements have a significant positive influence on change initiation

2.17.9 Change initiation and behaviour change maintenance

Rothman et al. (2000) conceptualised change intentions as reducing the differences between current or unwanted behaviour and the anticipated desired behaviour. The relationship between change initiation and the maintenance of a changed behaviour finds expression in the transtheoretical stages of the change model (Prochaska, 2020). Even though the model describes change intention and maintenance as a different set of activities, successful execution of change initiations into actual change naturally transitions an individual to change maintenance mode (Velicer et al., 1998). The above phenomenon is indeed the natural progression of behaviour change as envisaged by the model (Prochaska & Velicer, 1997). Some scholars also contend that the activities and motivation required to initiate behaviour changes would not be the same as those needed for change maintenance (Kwasnicka et al., 2016; Murray et al., 2017a; Ory et al., 2010). Despite these varying opinions, a convergence thought has been built around the fact that the ability to initiate behaviour changes is a primer for building on other motives for maintaining the same (Prochaska et al., 2013).

Past studies contend that once change initiation moves to the actual execution of the behaviour, its outcomes and lessons learned would influence the maintenance behaviour efforts (Cappellen et al., 2018; Sniehotta et al., 2005). However, in the extant empirical literature, there appears to be a lack of scholarship measuring the direct relationship between behaviour change intentions and change maintenance. Samdal et al. (2017), however, suggest that enough motivation and goal setting in change initiations may yield benefits for change maintenance; from the preceding, the study hypothesised that:

H_{9a}: Change initiation has a significant positive influence on change maintenance

2.17.10 Mediating role of change initiation in the relationship of change motives, marketing functions, and behaviour change maintenance

In the stages of the change model, change initiation mediates the relationship between pre-contemplation and contemplation stages and behaviour change maintenance (Prochaska & Velicer, 1997). Micro and macro factors influence individuals when taking initiatives to change unhealthy behaviours at the contemplation stage (Prochaska et al., 2013). Micro factors such as intrinsic and extrinsic change motives in the forms of self-concerns and situational influence may trigger change initiation (Preparation and action) attempts before change maintenance is considered (McBride et al., 1994). Macro factors, such as marketing activities of alcohol, influence contemplations either acting as enablers or inhibitors (demarketing) in driving behaviour change initiations (Yang et al., 2013).

There appears to be a scarcity of studies targeting behaviour change initiation (action) as a mediator in health-related behaviour change studies. There are, however, similar studies referring to similar actions, such as drinking reduction and peer influence as mediators;

For example, Foster et al. (2014) examined the mediating role of drink-refusal self-identity in the relationship between self-reported identity and alcohol use. The results show that drink-refusal self-identity fully mediates the relationship between self-reported identity and alcohol use. Earlier, in a health behavior network analysis, Veenstra et al. (2013) found that behaviour change initiation is triggered by micro factors such as peer influence/parental influence and mediates the relationship between those micro factors and behaviour continuance or stoppage. Using social cognition as a mediator, Hagger et al. (2019) found social cognition to mediate the relationship between self-control and health-related behaviour continuation fully. Within the context of the lack of studies measuring change initiation as a mediator in alcohol consumption change behaviour, this study contributes to the extant empirical literature by proposing that:

H_{9b}: Change initiation mediates the relationship between change motives, marketing functions, and behaviour change maintenance.

2.17.11 Self-regulation and behaviour change maintenance

Self-regulation has been conceptualised as the capability of organising, directing, and monitoring one's behaviour effortlessly in the face of changing environmental conditions (Brown, 1998). Self-regulation skill helps goal-targeted behaviours delay gratification in the short-term to achieve a long-term desired behaviour (Neal & Carey, 2005). This crucial skill is re-echoed in another conceptualisation of self-regulation as a feedback loop where self-regulation needs idea/goal formation for behaviour standards, comparing the current state of such standards (desired behaviour standards) and changing the current state if it falls below the standard (Carver & Scheier, 1982). The above discussion is similar to the three-step theory of self-regulation where self-monitoring, self-evaluation, and self-reinforcements combine effectively to sustain behaviour changes (Kanfer, 1970).

The extant literature has established the utility of self-regulation in health-related behaviour change studies. For example, in a systematic review of behaviour change maintenance theories, Kwasnicka et al. (2016) established self-regulation as a fundamental skill for sustaining most health-related behaviours after initial behaviour changes from intervention campaigns. In a similar study, Ferrari et al. (2009), looking at the effects of self-regulation on communal living, concluded that self-regulation positively affects the abstinence and maintenance of changed health behaviour. Baumeister and Vonasch (2014) found that self-regulation in an environment with the right resources aids in quitting and relapse of health-related behaviour change and maintenance. However, lacking enough resources might frustrate self-regulatory efforts due to a lack of support and motivation (Baumeister & Vonasch, 2014). Self-regulation is also an antecedent of health-related

behaviour change and maintenance. It has been found to reduce risk in many health-related behaviours, including alcohol consumption (Protogerou et al., 2020). Another study also recognised self-regulation as a crucial proximal factor controlling drinking behaviour and can trigger the maintenance of changed health-related behaviour (Benka, 2017). From the preceding, this study predicts that self-regulation would follow the pattern of the previous study in influencing behaviour change maintenance and hence hypothesise that:

H_{10}: Self-regulation has a significant positive influence on behaviour change maintenance

2.17.12 Moderating role of sobriety longevity in the relationship between change initiation and behaviour change maintenance

Sobriety sustenance research is currently in its neophyte stages (Pagano et al., 2009). Despite its infant stage, sobriety in alcohol consumption behaviour refers to the length of abstinence from consumption following behaviour change and maintenance of the changed behaviour (Neil S Coulson, 2014). The few sobriety studies in the extant empirical literature show the importance of social and network groupings in achieving sobriety longevity (see: Martinelli et al., 2020; Mericle, 2014; Patterson et al., 2021). The workings of Alcohol Anonymous (AA) and other similar sister organisations over the years have shown empirical evidence to suggest the efficacy of spirituality-like-minded group gatherings and sponsorships effectiveness in sustaining sobriety longevity (Ann et al., 2008). Per AA's own sobriety benchmark, six (6) months is the basic threshold for quitters to remain sober as sign of their self-efficacy to realising long term abstinance (Greenfield & Tonigan, 2013). In essence, longevity of sobriety would be sustained and be effective within the context of different forms of micro and macro social support environment (Martinelli et al., 2020).

The relationship between behaviour change initiation and maintenance of the changed behaviour as per the stages of change model relates to the fact that once behaviour change is initiated, it would naturally progress to the maintenance of the same under the constant provision of support and resources throughout the process (Prochaska et al., 2013). Therefore, behavior change initiation has a natural effect on the ability to sustain the change due to the lessons and support that transition from initiation to the maintenance stage (Prochaska, 2020). As far as this study is concerned, the extant empirical literature is yet to test the moderating effect of sobriety longevity on the relationship between change initiation behaviour and maintenance behaviour. Sobriety longevity as a moderator is essential in testing whether those who undertake the initiative to change drinking behaviour by staying off consumption and striving to prolong abstinence leading to long-term maintenance would be urged on or derailed by the length of the sobriety (> above 6 months and < below 6 months).

The length of sobriety within the extant literature has been observed to act as a source of motivation for alcohol quitters undergoing behaviour changes hoping to transition to a stage of long-term maintenance (see: Martinelli et al., 2020; Majer et al., 2016; Labbe et al., 2013). It has also been observed that shorter longevity periods are more unstable, risky, and prone to relapse, especially during the behaviour change initiation phase (Seeley et al., 2019). However, as sobriety longevity increases, so does the confidence in maintaining the changed behaviour (Gubi & Marsden-Hughes, 2013). Measuring the moderating role of sobriety longevity is one of the original contributions this study makes in advancing the scholarship in the alcohol sobriety literature. From the above discussions, this study hypothesise that:

H_{11}: Sobriety longevity moderates the relationship between change initiation and change maintenance

2.17.13 Self-efficacy and bahaviour change maintenance

Self-efficacy has been concepualised as the individual's belief in their ability to successfully carry through lifestyle behaviour changes (Olander et al., 2013). Self-efficacy is rooted in the social learning theory, in which the individual's interaction between personal and environmental factors is believed to shape their view (Bandura, 1982). On the other hand, self-efficacy seems to shape the individuals' environment (Bandura, 2000). In shaping the environment, the individual ability to learn and observe the environment provides enough resources to adapt and master their behaviours to control and react appropriately to the contingencies in the environment (Schmutzler et al., 2019). Self-efficacy has featured prominently in most behaviour change studies starting from the pioneering work of Bandura (1982), using self-efficacy to predict the treatment actions of snake phobia audience, to recent works in health-related behaviours such as alcohol consumption quit behaviour (Holloway & Watson, 2002).

In a recent study to test the self-efficacy potency of males on remand alcohol intervention programe, Holloway et al. (2021) found that self-efficacy was most prominent among inmates who posied to change their habits and maintain those changes to turn their lives around. Thus they found the intrinsic motivation and knowledge of alcohol abstinence as good resources that build their capabilities to overcome consumption problems (Holloway et al., 2021). Similarly, Sheeran et al. (2016) also found that self-efficacy is an enabler of behaviour change initiation and maintenance, whiles any altering of self-efficacy can delay the action of change initiation and cause constant relapse in maintenance behaviour. Blomqvist et al. (2003) also found self-efficacy to behave differently with different genders; thus, males and females have varying self-efficacies; however, they also contend that self-efficacy strongly predicts the ability of individuals to maintain changed behaviours. Self-

efficacy in this study is envisaged to enable quitters to maintain their changed behaviour. From the premise discussed above, the study hypothesised that:

H_{12}: Self-efficacy has a significant positive influence on behaviour change maintenance

2.17.14 Behaviour change maintenance and ease of change adaptation as an outcome

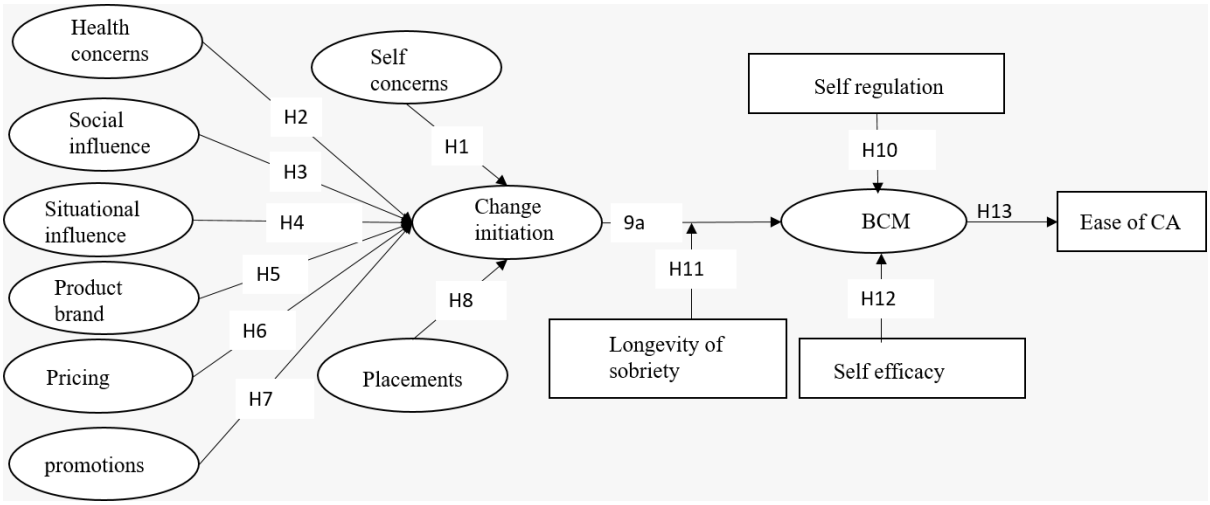
Maintenance is the stage where the audience strives to avoid relapse and work towards consolidating the behaviour change, usually going beyond the six months threshold from change initiation (Prochaska et al., 2013). The key to successful maintenance and reaching the behaviour termination stage, where the new desired behaviour becomes a routine, is to find enjoyment and no difficulties, fewer barriers, and inhibitors to the performance of the new lifestyle (Kwasnicka et al., 2016). Enjoyment of the new behaviour depends on how easy it is to perform. In most health-related behaviour change maintenance attempts, high relapse rates are triggered by difficulties performing the desired behaviours (Conner & Norman, 2017). At maintenance, strategies such as expert and social support that encourage the individual to have access to counseling and social stability go a long way to create that ease needed in performing the desired behaviour (Carr, 2014).

Successful maintenance should therefore lead to ease of performing the desired behaviours and naturally lead to desired behaviour becoming a routine lifestyle (Kwasnicka et al., 2019). Prior studies have made some allusions to the power of positive effects in promoting the lasting maintenance of desired behaviour. For example, Cappellen et al. (2018) found that positive effects enjoyed during the behaviour change process follow through after the change process to ensure that the changed lifestyle becomes routine. Kelly and Barker (2016) questioned why changing health-related behaviour is tricky. According to them, failing to appreciate psychological and sociological conditions pre and post-behaviour

changes to correct the errors in managing health-related behaviour change is to be blamed. Part of comprehending the difficulties in changing health-related behaviours is appreciating how the cognitive and social conditions allow the individual to enjoy the changed behaviour long term (Kelly & Barker, 2016). This study believes that well-managed behaviour change maintenance should generate a situation where the new behaviour is enjoyed making that behaviour a normal routine behaviour. As observed by Michie et al. (2014), motives for behaviour change initiation might change during change maintenance, hence the need to focus on other factors that make the daily performance of the behaviour easy. From the preceding, the study hypothesised that:

H_{13}: Behaviour change maintenance has a significant positive influence on ease of change adaptation

Conceptual Framework



Note: BCM: Behaviour Change Maintenance, CA: Change Adaptation

Figure 3: Conceptual framework showing hypothesised relationships

Source: Author's construction (2022)

2.18 Proximal and Distal Constructs Choice Justification

Ecological systems theory and the transtheoretical stages of change model inspired the proximal and distal constructs. These two formed the theoretical framework for this study. As espoused by the ecological system theory, many environmental factors affect micro- to macro-level behaviors (Brennan et al., 2016a). However, within the context of alcohol consumption behaviour, this study conceives the proximal factors from a four-factor approach to motivation to change consisting of intrinsic motives (two factors) and extrinsic motives (two factors) for measuring micro and meso-level change motives (Souter, 1997). The intrinsic factors consist of self-concerns and health concerns factors, which measure change motives from the individual (micro) level. In contrast, extrinsic factors consider social and situational influences in measuring change motives at the meso-environmental level (Souter, 1997).

Self-regulation and self-efficacy were included in the model as a basis for testing self-control, will, and capacity to sustain the behaviour change gains. Self-regulation and self-efficacy are standard constructs in behaviour change studies used to communicate the resourcefulness of the audience in achieving and sustaining behaviour changes (Dombrowski et al., 2014). Ease of change adaptation in the model is presented as an outcome construct to explain how change maintenance should ensure ease of performing the new behaviour as a sign of long-term sustenance. Ease of change adaptation as an outcome construct is one of the original contributions of this study to the social marketing literature.

In addressing one of the existing gaps in behaviour change maintenance studies, this study used marketing activities as its macro factors to test its direct effect on change initiation and indirect effect on change maintenance. Marketing activities consisting of alcohol product branding, pricing, promotion, and placements are macro-environmental issues and are considered elements that shape alcohol consumption behaviour outside the individual's microenvironment (Brennan et al., 2016a). According to the ecological system theory, macro elements are out of the control of individuals within the ecological system of behaviour influence (Veer et al., 2019). Primarily macro elements such as marketing activities are only controlled by higher macro elements such as government policy. However, within the ecological system, the powerful organisation also can influence the same government policies in their favour, as seen in the lobbying power of alcohol brands in South Africa (Bertscher et al., 2018). The alcohol marketing activities in this study, therefore, represent an essential macro element that affects alcohol consumption behaviour through alcohol product branding, pricing, promotion, and distribution which addresses a significant gap in the existing social marketing literature.

In summary, the literature review extensively reviewed all the major thematic areas covering this study's objectives. The literature review covered the general marketing concept, drilled down to social marketing, discussed ecological system theory, and the transtheoretical stages model as the main theoretical framework for this study. The context of the study was also extensively discussed. In the end, literature covering the hypothesised relationship in the conceptual framework was developed to provide the basis for the hypothesised relationships.

3.0 CHAPTER THREE

3.1 Methodology and Design

3.2 Introduction

This section starts with a brief review of research philosophies and methodological approaches underlying this research. The research design spells out the entire layout plan for executing the research. The section focuses on the research population of interest, sampling methods, data collection, analytical tools employed in executing the study, and instruments used for collecting data. Ethical considerations are discussed in the latter part of the section.

3.3 Research Philosophies

Research paradigms generally guide the selection of appropriate research methodologies based on the motives of the research into the phenomenon of interest. There is, however, no one best way of approaching any research endeavour; every methodology selected would represent a gain or a lost opportunity (Shulze, 2003). Social science identifies ontological, epistemological, and methodological foundations as its three main research paradigms (Bryman, 2016, Cresswell, 2014, Sarantakos, 2005). ***Ontological*** arguments are primarily premised on whether social science can approach measuring reality the same way as physical sciences. Whether reality or the nature of reality out there is subjectively constructed? (Neuman, 2011, Sarantakos, 2005). In the context of this study, the phenomenon of the personal and environmental factors affecting sobriety maintenance is, in so many ways, subjectively constructed. However, to appreciate the magnitude of personal and environmental influences on maintaining sobriety, an objective view was constructed as a basis for the estimation. The objective construction of this reality is

premised on the arguments that phenomenon in the social sciences can be objectively observed by adapting some robust protocols in the physical sciences (Neuman, 2011).

Epistemological debates revolve around the quest to observe human behavior, the same as observing natural science phenomena; it asks how we know what we know, in essence calling into question what constitutes acceptable knowledge (Bryman, 2016, Sarantakos, 2005; Shulze, 2003). Epistemologically, this study observed the phenomenon of sobriety maintenance from the perspective of how individual's personal and external environmental factors affect their sobriety maintenance efforts. In measuring the extent to which these factors influence sobriety maintenance, the research was set in a quantitative stance, allowing for an objective assessment of the influence of these factors.

Lastly, ***methodological*** arguments have been laid within the premise of answering the epistemological and ontological questions of how we know what we know. And how do we assess a phenomenon? Must it be done subjectively or objectively? Basically, how do you select a parsimonious research strategy that addresses the objectives of the phenomenon? (Bryman, 2016; Mutch, 2005). In responding to this study's ontological and epistemological queries, the methodological stance flowed from the quantitative epistemological stance previously taken. The discussions below, therefore, highlight all the methods deployed under the quantitative epistemological stance taken by this study. In answering the ontological and epistemological questions posed by this study, the methodology includes methods that support the phenomenon's quantitative observation.

In marketing research, the positivist paradigm is influenced by the

objectivist/realist ontology and empiricist epistemology seem to have dominated the discipline. The above statement implies using a quantitative strategy that employs fixed designs and robust quantitative analytical tools in measurement and analysis (Jones, 2011; Sarantakos, 2005). In contrast, phenomenology and symbolic interactionism is influenced by a *constructionist/subjective ontology and interpretivist epistemology* that utilizes a qualitative research strategy through flexible designs and qualitative data collection and analysis (Manion & Manison, 2000). The central thrust of the positivist arguments is based on how the world is perceived and viewed, thus the idea that social phenomenon should be observed similarly to how natural science phenomena are observed in objectively quantifiable causal relationships, which follows the fixed designs principles as outlined by Malhotra and Birks (1999).

Marketing researchers employ positivist philosophy to objectively test associations and causal relationships within a marketing phenomenon (Malhotra & Birks, p.136). Neuman (2011) asserts that positivists, through experiments, surveys, and statistical analysis tools, achieve the rigour that fits perfectly with their objective deductive view of the phenomenon under review. In contrast, the phenomenology paradigm from the interpretivism perspective argues that researchers should approach a phenomenon from the perspective of the subjects' lived experiences, considering their cultural and historical context (Sarantakos, 2005; Ulin, Robinson & Tolley, 2004).

The qualitative strategy then seeks to gain a deeper understanding of the social actors through the inductions made from the observations (Creswell, 2014; Hughes & Sharrock, 1990). (Neuman, 2003)

3.4 Quantitative research strategy

This study adopts a quantitative research strategy embedded in the positivist paradigm. From a parsimonious perspective, a quantitative strategy is best suited for this research for testing propositions and their relationships and underlying causal effects among variables (Malhotra & Birks, 1999). Creswell (2014) opines that quantitative approaches are best suited for testing underlying assumptions made by theories by supporting or not supporting the propositions using empirical statistical tools on data collected. Quantitative data allows large samples to be observed to measure the relationship and causal effects between constructs specified for estimation. It also allows for data control, for other estimations to be performed and predictions done, replications made, and some deductive inference for fair generalization of the estimates (Bryman, 2016; Creswell, 2014; Jones, 2011).

3.5 Research design

Bryman (2016) identified *cross-sectional*, *experimental*, *longitudinal*, *case study*, and *comparative designs* as the five main research designs. This study adopts a cross-sectional design in data collection. A cross-sectional design involves gathering data on a representative sample at a single period and obtaining quantitative or quantifiable data relating to more than one variable to identify relationship patterns (Bryman, 2016).

3.6 Population and sampling method

The population of interest for this study was former alcohol users who were in the state of living a sober lifestyle and determined to maintain the status of sobriety. This population profile suits the main objective of this study of estimating the effects of personal (proximal) and environmental (distal) factors on their ability to initiate the change process and maintain the changed behaviour. The population of former alcohol users within the

general alcohol consumption population is at a relatively low incidence of occurrence. The forgone means within the general alcohol-consuming population, the number of former alcohol users could be at a 10% incidence level, thus presenting a relatively more minor sample frame for selecting respondents. The 10% incidence of alcohol quitters implies that among the general population, there is a relatively low population of alcohol quitters and that only 10% of the entire population might be considered alcohol quitters. The low incidence of quitters as a challenge was overcome by conservatively revising the sample size downwards but not compromising its statistical rigour requirements for analysis.

The sampling methods equally followed the parsimonious path by applying purposive and convenient sampling techniques to sample selection. Purposive sampling deals with the direct need of this study to target a specific population profile of former alcohol users within the general population of alcohol consumers. The convenience sampling technique allowed members within the sample frame to decide to participate in the studies in their own time and space.

3.7 Data collection and analysis

The instruments for data collection were hosted on the Qualtrics™ platform. Qualtrics allows for the generation of URLs for easy access and convenience of respondents. Due to the sensitive nature of the subject matter, it was difficult reaching the respondents through the researcher's network system hence an experienced research firm with a track record in similar surveys relating to alcohol consumption was contracted to assist in data collection. Borderless Access Private Limited (https://borderlessaccess.com/), the research firm contracted, worked with the researcher to integrate re-directs controls into the qualtrics platform using the sieving question " which best describes your present history/circumstance with alcohol use?" the options to choose from were "1. Former alcoholic, 2. Former heavy, frequent social drinker and 3. None of the above. The re-directs algorithm directs all

respondents who select “none of the above” to the end of the survey thereby precluding them from taking part in the survey. A total of 1,220 participants responded to the call, of which 719 were screened out as unqualified to partake in the survey. These 719 respondents met the disqualification criteria of selecting option 3. “none of the above.” At the end of the data collection activities, a total sample size of N = 501 qualified respondents was recorded. A cursory appraisal of the data shows no missing data because it was part of the reward criteria for respondents to complete the data fully.

Data analytical tools again followed the parsimonious principle of addressing the objectives of this study. In the first objective, the study sought to estimate the effect of proximal and distal factors on behaviour change maintenance with 13 hypotheses. In doing so, the study employed structural equation modeling with AMOS version 23.0. The structural equation modeling technique allows multiple regression analysis on all latent variables and complex paths within a specified structural model to be examined (Hair, Black, Babin, & Anderson, 2010). Data is also checked for its reliability using the Cronbach alpha test to check for the reliability of items using the > 0.70 rule of thumb for accepting more substantial items for construct measurements as criteria (Nunnally, 1978; Hair et al. 2017) and the Fornell-Larcker Criterion for testing convergent validity respectively (Fornell & Larcker 1981). Demographic data were analyzed first using descriptive statistics. Finally, a confirmatory factor analysis (CFA) was performed to test the unidimensionality of all latent variables. In meeting the rigour benchmarks of using *SEM*, a measurement model was used to confirm the convergent and divergent properties of the latent variables before the structural models were specified (Xie et al., 2015; Yoo & Donthu, 2005).

The second objective was to determine the demographic predictors of sobriety longevity. In doing so, the study employed a *logit regression tool* to estimate demographic factors that significantly predict the longevity of sobriety. The logit analytical tool is suitable

for regression models with two categorical dependent variables, such as longevity of sobriety (less than < 6 months and more than > 6 months). Logit analysis uses significant odd ratios (probabilities) of the predictors to explain the likelihood of changes in the dependent variables. In the case of this study, demographic factors were used as predictors of sobriety longevity to determine whether they would support high or low sobriety longevity.

The last objective was identifying psychographic segments/clusters in alcohol consumption quitters' behaviour. In executing this, a *K-means clustering analysis, optimal scaling, and descriptive statistics* were used to identify lifestyle clusters using the Activity Interest and Opinions (AIO) framework in behaviour change maintenance lifestyle. K-means clustering partitions the observations into k-clusters where each observation belongs to the cluster with the nearest mean.

3.8 Operational definitions of constructs

The following are operational definitions of the constructs used as measures in this study.

1. Behaviour change maintenance was defined as the efforts made by former alcohol consumers to maintain their changed behaviour.
2. Change initiation was defined as efforts made by former alcohol consumers to take steps to quit drinking during their active drinking days.
3. Change motives were measured with four constructs of intrinsic and extrinsic motives. Intrinsic motives: self-concerns, defined as concerns for one's general well-being. Health concerns were defined as the concerns around the health implications of continuous consumption of alcohol. Extrinsic motives: social influence was defined as the pressure exerted by family, friends, and colleagues on the need to change drinking behaviour. The situational influence was defined as the pressure exerted by the

current situational circumstances of the individual, such as employment stability, accommodation, and social status, on drinking habits.

4. Marketing functions were defined for the 4 P's. Product branding was defined as the efforts made by alcohol brands to keep consumers interested through packaging and positioning storytelling strategies. Pricing was defined as the amount charged for each alcohol product at the point of sale. The promotion was defined as the efforts made by alcohol brands to create top-of-the-mind awareness about alcohol product portfolios and their benefits. Placements were defined as the distribution of these alcohol products for easy accessibility.
5. Self-efficacy was defined as the ability of the individual to undertake self-initiated changes to behaviour and develop the capacity to maintain changes made to the behaviour.
6. Self-regulation was defined as the ability and capacity of individuals to monitor and adjust their behaviours to stay on track in the face of the temptations of relapsing to old behaviours.
7. Sobriety longevity was defined as low when it is below 6 months and high when it is above 6 months.
8. Ease of change adaptation was defined as the perception of former alcohol consumers on the level of difficulties and ease at which they adapt to the changed new behaviour.

3.9 Measures

The measuring instruments used were all existing standardised instruments except for one. Behaviour change maintenance which is the dependent variable, was measured by adapting the *University of Rhode Island Change Assessment (URICA) instrument* inspired by DiClemente and Hughes (1990) and McConnaughy et al. (1983). This measure was initially designed to measure the five stages of behaviour change (McConnaughy et al., 1983), and it took its roots from the one hundred and sixty-five items scale derived from behavioural definitions from the theoretical base of the stages of change model by (Prochaska & DiClemente, 1982). The URICA change assessment tool measuring behaviour change maintenance originally had 7 items, of which 4 were adapted in this study. The 4 adapted items were measured on a 5-point Likert scale format (1= never to 5 = repeatedly), with questions such as *"I avoid situations that encourage me to drink"* and *"I try to think about other things when I begin to think about drinking"*. Change initiation was also measured by an adaptation of the *URICA assessment tool*. The original behaviour change initiation action was measured by 7 items out of which 4 were adapted for this study and measured on likert scale format (1= never to 5 = repeatedly). Some questions include *"I do something nice for myself for making efforts to change"* and *"I remove things from my home or work that remind me of drinking"*.

Change motives were measured by adapting Souter's eight-factor reasons for the change in the drinking scale. The eight-factor reasons for the change in drinking scale were further refined into a four-factor change motives scale by Souter (1997). The study used the four-factor change motives of intrinsic and extrinsic factors. Self-concerns and health concerns measure the intrinsic factors; extrinsic factors are measured by social and situational

influence. All the four-factor scales for change motives were measured on a 7-point Likert scale format (1= strongly disagree to 7= strongly agree). Self-concerns were measured by 4 items with questions such as *"My life was out of control because of my drinking"* and *"I want to get my life back on track."* Health concerns were measured by 4 items with questions such as *"I have physical symptoms that indicate that alcohol is hurting my health"* and *"I think that drinking was harming my health."* Social influence is measured by 4 items with questions such as *"People I care about want me to change my drinking habit"* and *"I was afraid of what my drinking was doing to my family."*

Situational influence is measured by 4 items with questions such as *"I stopped drinking to do my job well and continue being employed"* and *"I want to improve my current financial situation."*

Marketing functions of alcohol product branding, pricing, promotion, and placements were measured by adapting the *MIXADAPT scale* by Lages and Lages (2003). All the marketing mix activities were measured on a 7-point Likert scale (1= strongly disagree to 7= strongly agree). Alcohol product brand was measured with 3 items with questions such as *"My favourite alcohol brands tempt me to buy"* and *"I am attracted by the labeling and design of my favourite brand."* Alcohol pricing was measured by 3 items with questions *such as "Price was a major consideration for me in buying alcohol products"* and *"Cheap alcohol pricing tempts me to buy."* Alcohol promotion was measured with 3 items with questions like *"Whenever I see alcohol advertisements, it tempts me to drink"* and *"Sales promotions through price discounts tempt me to buy more alcohol."* Alcohol placements were measured with 3 items with questions such as *"There are lots of outlets I can easily buy alcohol brands"* and *"My neighbourhood has so many alcohol sales outlets, and that tempts me to buy."*

Self-efficacy was measured with an adaptation of the *Generalised self-efficacy scale* by Schwarzer and Jerusalem (1995). The GSE with an original 10-item scale was adapted into a 4-item Likert scale format (1= strongly disagree to 7= strongly agree). Respondents answered questions such *as "I will be able to achieve most of the goals that I have set for myself"* and *"I will be able to overcome many challenges."* Self-regulation was measured by adapting the *short version of the* 20-item *self-regulation questionnaire* (SSRQ). The adapted 4-item scale of the SSRQ measured self-regulation on a 7-point Likert scale format (1= strongly disagree to 7= strongly agree).

Questions include but are not limited to *"I have trouble following through with things once I've made up my mind to do something"* and *"I can stick to a plan that's working well."* *Longevity of sobriety* was measured as a categorical variable using Alcohol Anonymous 6-month sobriety success benchmark. The sobriety success rate of the studied audience was therefore measured by asking them to select whether they had stayed off alcohol for *more than > 6 months or less than < 6 months* (Hill & Leeming, 2014).

The psychographic survey used the Activity, Interest, and Opinions (AIO) lifestyle measures framework adapted from Berg et al. (2010) that asks questions about religion, relationships, political and partying activities, and interests. The original 10 lifestyle-themed constructs were adapted to 5-themed lifestyle constructs spanning lifestyle activities on *socialization associations, relationship interest, ingredients of a good relationship, fashion sense, and party activities.* These themed lifestyle constructs have multiple responses that describe the audience's lifestyles, and the audience was required to select as many as apply to them. Some of the questions include; *"for a relationship to work for me, it's most important that I am satisfied" 1. Physically, 2. Emotionally, 3. Spiritually, 4. Intellectually.* and on *relationship interest*, the question was: i am interested in, and options were; *1. a long-term*

relationship, 2. a relationship with growth potential, 3. a relationship with no strings attached, 4. Someone with shared interests and activities to spend time with.

3.10 Ethical consideration

In keeping with ethical guidelines, the study did the following: first, informed consent will be sought from the audience, who will be free to withdraw from completing the questionnaire should they feel uncomfortable with any aspect. Second, the research will be conducted under strict confidentiality and ensure that the anonymity of the respondents is guaranteed at all times. Under no circumstance can responses be traced to a specific individual. Respondents will also be assured that the information gathered will be used solely for research. Finally, ethical clearance was sought from the University of the Witwatersrand Ethics Committee before the commencement of data collection. Audiences participating in the study had no material or financial inducement to participate. The data collection firm only presented a token of financial reward of 80 rands to respondents for completing the survey.

In summary, the methodology presented the research design and the research's philosophical stance. The population of interest was thoroughly discussed. The sampling techniques used were discussed. Sample size determination and the rationale for arriving at sample size were discussed. Measures deployed on survey instrument for data collection was discussed. Data collection procedures were thoroughly discussed. Analytical tools for cleaning, testing data normality and analysing data for all three objectives were discussed.

4.0 CHAPTER FOUR

4.1 Presentation of Results

4.2 Introduction

This chapter presents the data analysis results from surveys administered through Qualtrics starting from objectives 1 to 3. A final sample of 501 former alcohol consumers in South Africa was used for the analysis. The analysis includes background information on the audience, a normality test, confirmatory factor analysis, and a test of the research model using AMOS version 23.0 (Byrne, 2013) and Hayes Process Macros (Hayes, 2017), a logit regression analysis and a K-means clustering analysis. The purpose of the study was to investigate the personal and environmental determinants of alcohol consumption changed behaviour maintenance.

4.3 Data Cleaning and Normality Test

The researcher performed initial data preparation, including data cleaning, outliers assessment, and a normality test in line with recommendations by Blanca et al. (2013). First, the researcher performed descriptive statistics on the Likert scale items to ensure that all responses were within the range of 1-5. The purpose was to check for possible data entry errors. Next, the researcher screened the data for the presence of outliers. To check for outliers, a researcher may check for skewness and kurtosis of the research items; values of skewness more significant than 1.6 or less than -1.5 are considered outliers for all distributions, whereas in the case of kurtosis, values greater than 2.7 are considered outliers (Blanca et al., 2013).

The results of the skewness and kurtosis for all the questionnaire Likert scale items related to the research model in this study are shown in Table 1. The results show most of the variables had skewness and kurtosis within the recommended threshold of -1.5 to 1.6 and less than 2.7, respectively; therefore, the data does not present significant outlier problems (Blanca et al., 2013). The few variables, particularly under self-efficacy and self-regulation, had skewness and kurtosis outside the recommended range. Therefore, the data is broadly normally distributed, notably the main endogenous variables in the model, including change initiation, behaviour change maintenance, and ease of change adaptation, were all normally distributed; hence the data is suitable for performing structural equation modeling (Blanca et al., 2013; Byrne, 2013; Hair et al., 2010).

Table 1: Assessment of the normality distribution of items

Items	Mean	S.D	Skewness	Kurtosis
sc1	4.480	2.088	-0.381	-1.237
sc2	4.500	2.051	-0.431	-1.145
sc3	5.640	1.689	-1.387	1.168
sc4	5.160	1.956	-0.935	-0.340
hc1	4.120	2.105	-0.196	-1.407
hc2	3.720	2.247	0.153	-1.543
hc3	5.130	1.838	-0.960	-0.169
hc4	4.990	1.916	-0.752	-0.641
si1	4.880	2.049	-0.639	-0.949

si2	4.820	1.962	-0.638	-0.858
si3	5.660	1.650	-1.464	1.417
si4	5.880	1.468	-1.763	2.925
siti1	4.770	1.966	-0.568	-0.905
siti2	3.740	2.094	0.142	-1.351
siti3	6.010	1.386	-1.888	3.609
siti4	4.530	2.106	-0.392	-1.230
aprod1	4.270	1.922	-0.308	-1.116
aprod2	4.110	1.955	-0.190	-1.227
aprod3	4.640	1.829	-0.624	-0.663
apric1	4.690	1.901	-0.542	-0.893
apric2	3.860	2.104	-0.004	-1.424
apric3	4.120	2.026	-0.196	-1.262
aprom1	3.510	2.018	0.285	-1.230
aprom2	3.800	2.011	-0.016	-1.350
aprom3	3.180	2.005	0.492	-1.117
aplac1	5.880	1.393	-1.743	2.994
aplac2	4.650	2.045	-0.518	-1.115
aplac3	5.860	1.387	-1.594	2.425

sr1	5.420	1.474	-1.139	0.974
sr2	5.360	1.644	-1.098	0.386
sr3	5.760	1.243	-1.450	2.513
sr4	5.840	1.276	-1.655	3.235
se1	5.860	1.297	-1.614	2.959
se2	5.830	1.149	-1.484	3.249
se3	5.920	1.187	-1.594	3.392
se4	5.860	1.256	-1.646	3.406
ic1	3.500	1.183	-0.399	-0.630
ic2	3.460	1.257	-0.513	-0.739
ic3	2.970	1.469	-0.065	-1.381
ic4	3.250	1.348	-0.306	-1.068
bcm1	3.930	1.095	-1.039	0.788
bcm2	3.500	1.218	-0.647	-0.185
bcm3	3.610	1.194	-0.803	0.082
bcm4	3.600	1.198	-0.705	-0.053
eca1	3.970	1.798	-0.013	-0.893
eca2	4.250	1.651	-0.136	-0.664
eca3	4.380	1.714	-0.220	-0.809

Source: Field Data (2021)

Key: **sc:** self-concern, **hc:** health concern, **si:** social influence, **sit:** situational influence, **aprod:** alcohol product, **apric:** alcohol pricing, **aprom:** alcohol promotion, **aplac:** alcohol placement, **sr:** self-regulation, **se:** self-efficacy, **ic:** change initiation, **bcm:** behaviour change maintenance, **eca:** ease of change adaptation.

4.4 Demographic Information

This paragraph presents the background information of the participants. The primary background information solicited includes the type of alcohol consumption, longevity of sobriety, age group, gender, education, income, occupation, marital status, province, and ethnicity, amongst others (Table 2). The age group of the audience includes 20-29 years (n=136, 27.1%), 30-39 years (n=168, 33.5%), 40-49 years (n=116, 23.2%), and 50 years and above (n=81, 16.2%). Overall, the age distribution shows a younger alcohol consumer quit population, which is seeing a gradual surge in numbers.

Most of the audience (n=270, 53.9%) were females, whereas the rest were males (n=231, 46.1%). The educational levels of the audience include no education (n=11, 2.2%), matric (n=187, 37.3%), Diploma (n=112, 22.4%), Bachelor's degree (n=133, 26.5%), and Postgraduate degree (n=58, 11.6%). The income levels of the audience include R0-R4,999 (n=101, 20.2%), R5000-R9,99 (n=94, 18.8%), R10,000-R19,999 (n=161, 32.1%), R20,000-R29,999 (n=97, 19.4%), and over R30,000 (n=48, 9.6%).

The majority of the audience were employed (n=289, 57.7%); the others included self-employed/entrepreneurs (20.6%), unemployed (10.8%), students (6.6%), and others (4.4%). Two in five audiences were either single (n=207, 41.3%) or married (n=192, 38.2%); the rest were cohabitating (n=69, 13.8%), divorced (n=18, 3.6%), separated (n=8, 1.6%), and widowed (n=7, 1.4%). The majority of the audience was from Gauteng (n=228, 45.5%), Western Cape (n=81, 16.2%), and Kwazulu-Natal (n=79, 15.8%). The majority of the

audience were black Africans (n=292, 58.3), followed by Whites (n=119, 23.8%), coloured (n=64, 12.8%), and Indian (n=26, 5.2%). See Table 1 for details.

Table 2: Summary of audience demographic information

	Educational level	**%**	**Income (R)**	**%**
	No education	2.2	0-4,999	20.2
	Matric	37.3	5000-9,999	18.8
	Diploma	22.4	10,000-19,999	32.1
	Bachelors	26.5	20,000-29,000	19.4
	Postgraduate	11.6	Over 30,000	9.6
		100		**100**
	Occupation	**%**	**Ethnicity**	**%**
n = 501	Employed	57.7	Black African	58.3
	Entrepreneur	2.6	Coloured	12.8
	Student	6.6	Indian	5.1
	Unemployed	10.8	White	23.8
	Self-employed	18		**100**
	Other	4.4		
		100		
	Marital status	**%**	**Gender**	**%**
	Married	38.3	Male	46.1
	Cohabitating	13.8	Female	53.9
	Single	41.2		**100**
	Divorced	3.6	**Age**	
	Widowed	1.4	20-29	27.1
	Separated	1.6	30-39	33.5
		100	40-49	23.2
			50-above	16.2
				100

Source: Field data (2021)

Audience history with alcohol consumption was measured using the consumption typology of former alcoholics and frequent heavy social drinkers to describe their history with alcohol. Table 3 shows the distribution of the consumption history typologies of alcoholic and heavy social drinkers across all nine (9) provinces in South Africa. Gauteng had the largest sample size relative to the province's randomly determined sample sizes (n = 228) and reported

20.6% former alcoholics and 79.3% former heavy social drinkers. The Northern Cape, with the smallest sample (n = 8), reported 12.5% of former alcoholics and 87.5% of former heavy social drinkers.

Not surprisingly, Gauteng, the smallest province by land mass, had the highest recorded number of alcohol quitters, which matches its cosmopolitan status of modern urban life. In contrast, the Northern Cape, the largest in land mass, had the lowest reported cases of alcohol quitters mainly due to its sparse population, which does not have the same cosmopolitan qualities as Gauteng. The distribution in table 3 also shows that a more significant percentage of heavy social drinkers are opting to quit alcohol consumption, perhaps as a pre-emptive strategy for not slipping into the category of an alcoholic. Social heavy consumers are thus becoming part of the growing number of alcohol-quit consumers looking for long-term sobriety.

Table 3: Alcohol Consumption Typology by Provinces

	Consumption typology		
Provinces	**Alcoholic %**	**frequent heavy social drinker %**	**Total n(100%)**
Eastern Cape	12.5	87.5	24
Free State	38.9	61.1	18
Gauteng	20.6	79.3	228
Kwazulu-Natal	32.9	67	79
Limpopo	28	72	25
Mpumalanga	6	21	27
North West	22.2	81.8	11
Northern Cape	12.5	87.5	8
Western Cape	8.6	91.4	81
Total		**N =**	**501**

Source: Field data (2021)

Similar to the distribution of consumer typology, Gauteng exhibited the highest number of audience staying sober, while the Northern Cape had the lowest relative to their respective sample sizes. Specifically, in Gauteng, 61.4% of the audience had stayed sober for more than 6 months, while 38.4% had stayed sober for less than 6 months. In the Northern Cape, 25% stayed sober beyond 6 months, while 75% stayed sober below 6 months. The longevity of sobriety distribution shows that many more audiences are striving to stay sober after quitting alcohol consumption. A cursory look at Table 4 shows a surge in the will to maintain sobriety into the future; the percentages across most provinces on > more than 6 months' sobriety is ascending.

Table 4: Sobriety Longevity by Provinces

	Sobriety longevity			
Provinces	**< Less than 6 months**	**%**	**> More than 6 months**	**%**	**Total n(100%)**
Eastern Cape	45.8	54.2	24
Free State	27.8	72.2	18
Gauteng	38.4	61.4	228
Kwazulu-Natal	44.3	55.7	79
Limpopo	36	64	25
Mpumalanga	40.7	59.3	27
North West	18.2	81.8	11
Northern Cape	75	25	8
Western Cape	38.3	61.7	81
		N =	**501**

Source: Field data (2021)

4.5 Confirmatory Factor Analysis (CFA)

The scales on the conceptual model were all adapted; as a result, the researcher performed confirmatory factor analysis for each subscale using covariance-based structural equation modeling software of AMOS version 23 (Byrne, 2013). To perform confirmatory factor analysis, researchers usually assess model fit indices and test the scales' psychometric properties, including convergent and discriminant validity of the constructs (Byrne, 2013; Hair et al., 2017; Hu & Bentler, 1999). Convergent validity seeks to ensure that the latent variables measure what they are intended to measure, whereas discriminant validity shows the uniqueness of each of the latent variables to avoid multicollinearity (Fornell & Larcker, 1981; Gerbing & Anderson, 1988; Hair et al., 2017)

4.5.1 Assessment of Model Fit Indices

Several authors claimed that to obtain excellent fit indexes, the Chi-square/DF should be less than 3 or, at worse, less than 5, and the root mean square error of approximation (RMSEA) should be less than 0.05 or, at worse, less than 0.08, the adjusted goodness of fit indices (AGFI) should be above 0.80, and the comparative fit indices (CFI) should be greater than 0.90 (Hu & Bentler, 1999; Byrne, 2013).

The initial models for change motives, marketing functions, self-regulation, self-efficacy, change initiation, behaviour change management, and ease of change adaptation were a poor fit to the data. The modification indices suggested setting the error covariances between some items to zero (0), as shown in figures 4-10. The purified models showed satisfactory fit indices (Hu & Bentler, 1999) (Table 3): change motives (χ^2/df=2.158, RMSEA = 0.048, CFI = 0.982), marketing functions (χ^2/df=3.449, RMSEA = 0.070, CFI = 0.982), self-regulation (χ^2/df=5.155, RMSEA = 0.091, CFI = 0.994), self-efficacy (χ^2/df=0.083, RMSEA = 0.000, CFI = 1.000), change initiation (χ^2/df=2.622, RMSEA = 0.057, CFI = 0.998), behaviour change management (χ^2/df=0.904, RMSEA = 0.000, CFI = 1.000), and ease of change adaptation (χ^2/df=0.001, RMSEA = 0.000, CFI = 1.000)

The scale involving change motives has four subscales: self-concerns, health concerns, social influence, and situational influence. A measurement model analysis (confirmatory factor analysis) was performed for the change motives scale with its four dimensions, as shown in Figure 4.

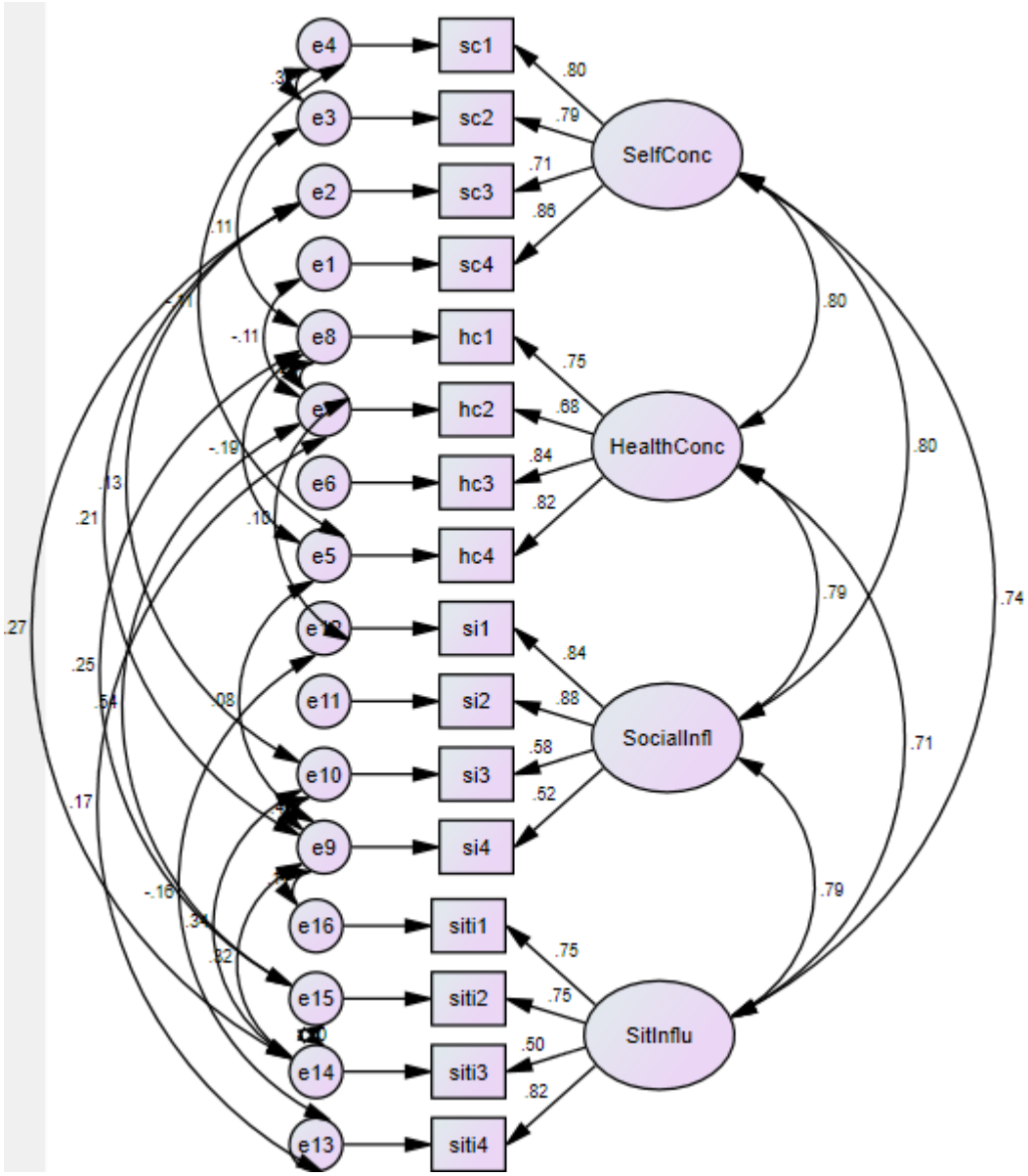


Figure 4: Measurement model for change motives

Note: The codes sc1-sc4 (items under self-concerns), hc1-hc4 (items under health concern), si1-si4 (items under social influence), and sit1-sit4 (items under situational influence)

Source: Field Data (2021)

The scale involving marketing functions has four subscales, including alcohol product, price, promotion, and place. A measurement model analysis (confirmatory factor analysis) was performed for the marketing function scale with its four dimensions, as shown in Figure 5.

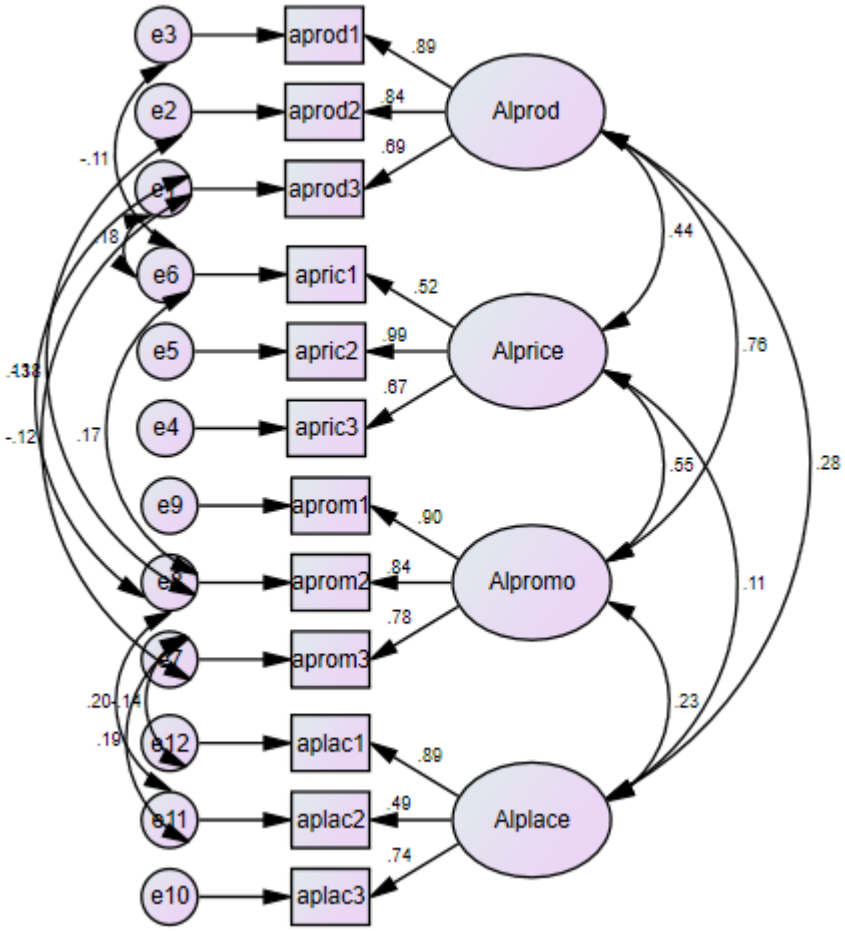


Figure 5: Measurement model for marketing functions

Note: The codes aprod1-aprod3 (items under alcohol product), apric1-apric3 (items under alcohol price), aprom1-aprom3 (items under alcohol promotion), and aplac1-aplac3 (items under alcohol place)

Source: Field Data (2021)

The measurement model for the self-regulation scale is presented in Figure 6.

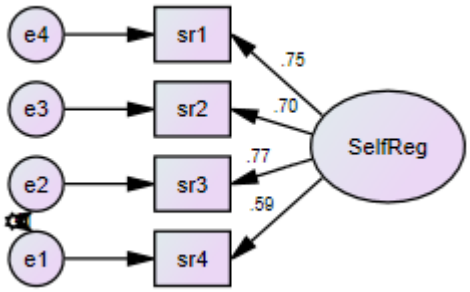


Figure 6: Measurement model for self-regulation

Note: sr 1-sr7 are individual items under self-regulation. The error covariance between sr3 and sr4 was set free to obtain a good model fit.

Source: Field Data (2021)

The measurement model for the self-efficacy scale is presented in Figure 7.

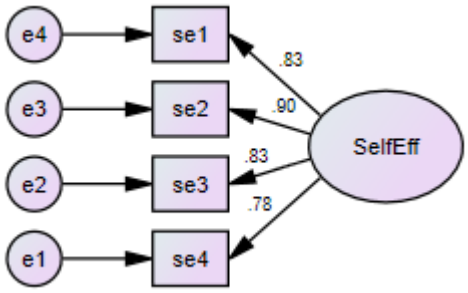


Figure 7: Measurement model for self-efficacy

Note: se 1-se4 are individual items under self-efficacy.

Source: Field Data (2021)

The measurement model for the change initiation scale is presented in Figure 8.

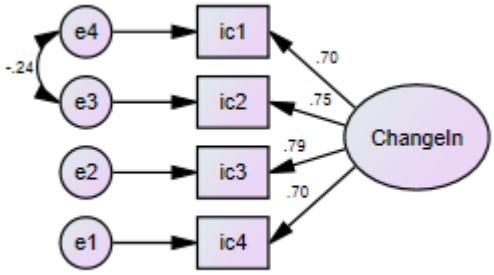


Figure 8: Measurement model for change initiation

Note: ic1-ic4 are individual items under change initiation. The error covariance between ic1 and ic2 was set free to obtain a good model fit.

Source: Field Data (2021)

The measurement model for the change maintenance scale is presented in Figure 9.

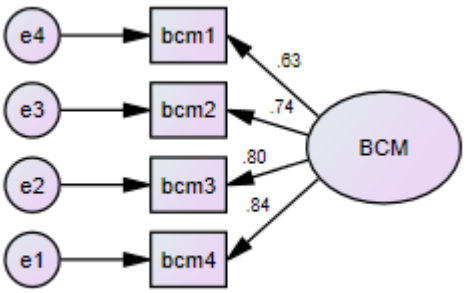


Figure 9: Measurement model for behaviour change maintenance

Note: bcm1-bcm4 are individual items under behaviour change maintenance.

Source: Field Data (2021)

The measurement model for the ease of change adaptation scale is presented in Figure 10.

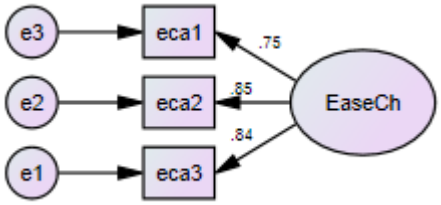


Figure 10: Measurement model for ease of change adaptation

Note: eca1-eca3 are individual items under ease of change adaption.

Source: Field Data (2021)

4.5.2 Reliability and Convergent Validity

From Table 6 all thirteen (13) constructs had Cronbach's alphas above 0.70; thus, reliability has been met for each scale (Hair et al., 2017; Nunnally, 1978). To meet the threshold of convergent validity, several authors believe the composite reliabilities (C. R.s) of the constructs should be higher than 0.70, and average variance extracted estimates of 0.50 or higher (Byrne, 2013; Fornell & Larcker, 1981; Hair et al., 2017). The results in Table 5 also show that all the constructs had composite reliabilities above 0.70 and average variance extracted estimates above 50%. This result implies that convergent validity has been met.

Table 5: Items measurement-validity and reliability assessment results

Codes	Construct	α	CR	AVE	T values	Loading
	Change Motives					
	Self-Concerns	0.879	0.870	0.626		
sc1	My life was out of control because of my drinking.				20.554	0.80
sc2	I was missing out on things because alcohol was too large a part of my life.				20.399	0.79
sc3	I want to get my life back on track.				17.76	0.71
sc4	I didn't like the person I'd become as a result of my drinking.				Fixed	0.86
	Health Concerns	0.849	0.856	0.600		

hc1	I have physical symptoms that indicate that alcohol is hurting my health.				16.532	0.75
hc2	My doctor advised me to stop drinking.				15.928	0.68
hc3	I think that drinking was harming my health.				20.539	0.84
hc4	I was afraid that drinking would shorten my life.				Fixed	0.82
	Social Influence	0.823	0.807	0.523		
si1	People I care about want me to change my drinking habits.				12.086	0.84
si2	I was afraid of what my drinking was doing to my family.				12.321	0.88
si3	I don't want people I care about to think of me as a drunk or alcoholic.				13.265	0.58
si4	I can improve my relationship with those I care about				Fixed	0.52
	Situational Influence	0.795	0.803	0.512		
siti1	I stopped drinking to do my job well and continue being employed.				17.509	0.75

siti2	My employer wants me to stop drinking.				17.527	0.75
siti3	I want to improve my current financial situation.				10.940	0.50
siti4	Drinking seriously limits my ability to get a decent place to live and enjoy normal leisure activities.				Fixed	0.82
	Marketing Functions					
	Alcohol Product	0.847	0.849	0.654		
aprod1	My favourite alcohol brands tempt me to buy				17.28	0.89
aprod2	I am attracted by the labeling and design of my favourite brand.				16.68	0.84
aprod3	I derive great satisfaction from my favourite alcohol brand.				Fixed	0.69
	Alcohol Pricing	0.760	0.788	0.570		
apric1	Price was a significant consideration for me in buying alcohol products.				11.45	0.53

apric2	Cheap alcohol pricing tempts me to buy				13.91	0.99
apric3	Regardless of the price, I will not buy any alcohol brand again.				Fixed	0.67
	Alcohol Promotion	0.888	0.881	0.712		
aprom1	Whenever I see alcohol advertisements, it tempts me to drink.				22.07	0.90
aprom2	Sales promotions through price discounts tempt me to buy more alcohol.				20.48	0.84
aprom3	Seeing famous people endorse alcoholic brands tempts me to indulge.				Fixed	0.78
	Alcohol Placement	0.741	0.761	0.528		
aplac1	There are lots of outlets I can easily buy alcohol brands.				11.605	0.89
aplac2	My neighborhood has so many alcohol sales outlets, and that tempts me to buy				10.149	0.49
aplac3	It's easy to get any type of alcohol brand throughout the country.				Fixed	0.74

	Self Regulation	0.808	0.797	0.500		
sr1	When it comes to deciding about a change, I feel overwhelmed by the choices (R.)				10.34	0.75
sr2	I have trouble following through with things once I've made up my mind to do something (R.)				10.26	0.70
sr3	I can stick to a plan that's working well.				14.65	0.77
sr4	As soon as I see a problem or challenge, I start looking for possible solutions.				Fixed	0.59
	Self-Efficacy	0.901	0.904	0.702		
se1	I will be able to achieve most of the goals that I have set for myself.				19.99	0.83
se2	When facing difficult tasks, I am certain that I will accomplish them.				21.87	0.90

se3	I will be able to successfully overcome many challenges.				20.07	0.83
se4	Compared to other people, I can do most tasks very well.					0.78
	Change Initiation	0.813	0.825	0.541		
ic1	I do something nice for myself for making efforts to change.				12.53	0.70
ic2	I think about how my drinking is hurting people around me.				13.36	0.75
ic3	I remove things from my home or work that remind me of drinking.				15.10	0.79
ic4	I have someone who listens when I want to talk about my drinking.					0.70
	Behaviour Change Maintenance	0.839	0.841	0.571		
bcm1	I tell myself I have the will to make critical decisions concerning my drinking habit.				14.17	0.63
bcm2	I reward myself when I don't give in to my urge to drink.				16.79	0.74
bcm3	I avoid situations that encourage me to drink.				18.16	0.80

bcm4	I try to think about other things when I begin to think about drinking.				Fixed	0.84
	Ease of Change Adaptation	0.855	0.858	0.669		
eca1	Adapting to the new behaviour requirements has been				17.67	0.75
eca2	I find compromises to make in a new behaviour				19.07	0.85
eca3	Overall, my coping ability with the new behaviour has been				Fixed	0.84

Fit Statistics	**Chi-square (df)**	**X2/df**	**RMSEA**	**AGFI**	**TLI**	**CFI**
Change Motives	168.34(78)	2.158	0.048	0.929	0.972	0.982
Marketing Functions	134.49(39)	3.449	0.070	0.918	0.947	0.969
Self-Regulation	5.155(1)	5.155	0.091	0.949	0.965	0.994
Self-Efficacy	0.16(2)	0.083	0.000	0.999	1.004	1.000
Change Initiation	2.622(1)	2.622	0.057	0.974	0.985	0.998

Behaviour Change Maintenance	1.81(2)	0.905	0.000	0.991	1.001	1.000
Ease of Change Adaptation	0.001(1)	0.001	0.000	1.000	1.000	1.000

Notes: CR- composite reliability, Alpha (a) - Cronbach's Alpha, AVE -Average variance extracted, DF- Degree of freedom, RMSEA- Root mean square error of approximation, AGFI- Adjusted Goodness of fit index, TLI-Tucker-Lewis Index, and CFI- Comparative fit index were reported. **Key**: **sc:** self-concern, **hc:** health concern, **si:** social influence, **sit:** situational influence, **aprod:** alcohol product, **apric:** alcohol pricing, **aprom:** alcohol promotion, **aplac:** alcohol placement, **sr:** self-regulation, **se:** self-efficacy, **ic:** change initiation, **bcm:** behaviour change maintenance, **eca:** ease of change adaptation.

Source: Field Data (2021)

4.5.3 Discriminant Validity

Discriminant is met by the fact that the square root of the average variance extracted (AVEs were all higher than the inter-construct correlations between them; therefore, the thirteen-variable model demonstrates the uniqueness and discriminant validity (Byrne, 2013; Fornell & Larcker 1981; Hair et al., 2017; Kwapong, 2021). See Table 6 for details.

Table 6: Discriminant Validity-Fornell-Larcker Criterion

Constructs	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self-Concerns	**0.791**												
2. Health Concerns	0.661	**0.775**											
3. Social Influence	0.668	0.649	**0.723**										
4. Situational Influence	0.628	0.657	0.666	**0.716**									
5. Alcohol Product	0.192	0.239	0.191	0.339	**0.809**								
6. Alcohol Pricing	0.187	0.229	0.140	0.290	0.417	**0.755**							
7. Alcohol Promotion	0.190	0.253	0.199	0.341	0.659	0.496	**0.844**						
8. Alcohol Placement	0.200	0.224	0.246	0.200	0.332	0.222	0.335	**0.727**					
9. Self-Regulation	0.250	0.274	0.375	0.358	0.193	0.173	0.121	0.331	**0.707**				

10. Self-Efficacy	0.218	0.231	0.309	0.321	0.097	0.062	0.031	0.198	0.528	**0.838**			
11. Change Initiation	0.490	0.500	0.556	0.641	0.298	0.249	0.268	0.146	0.327	0.349	**0.736**		
12. Behaviour Change Maintenance	0.430	0.470	0.532	0.566	0.221	0.147	0.169	0.166	0.353	0.363	0.695	**0.756**	
13. Ease of Change Adaptation	0.006	-0.014	0.035	0.126	-0.027	0.047	-0.066	-0.023	0.129	0.240	0.144	0.210	**0.818**

Note: Square roots of AVEs in bold diagonal

4.5.4 Description Statistics of the latent variables

The descriptive statistics of the study's thirteen latent variables or constructs using means and standard deviation are presented in Table 7. The variables on the dimensions of change motives, marketing functions, self-regulation, self-efficacy, and ease of change adaptation were coded using a 1–7 point Likert Scale, where 1=strongly disagree and 7= strongly agree. The variables on change initiation and behaviour change management were coded using a 1–5 point Likert Scale, where 1=never and 5= repeatedly. The thirteen constructs' latent variable scores (composite values) were computed by averaging the items under them (Byrne, 2013; Hair et al., 2010).

Table 7: Descriptive Statistics

Constructs	Min	Max	Mean	SD
Self-Concerns	1.00	7.00	4.95	1.67
Health Concerns	1.00	7.00	4.50	1.69
Social Influence	1.00	7.00	5.31	1.45
Situational Influence	1.00	7.00	4.76	1.50
Alcohol Product	1.00	7.00	4.34	1.67
Alcohol Pricing	1.00	7.00	4.22	1.65
Alcohol Promotion	1.00	7.00	3.50	1.82
Alcohol Placement	1.00	7.00	5.46	1.30
Self-Regulation	1.00	7.00	5.60	1.13
Self-Efficacy	1.00	7.00	5.87	1.07

Change Initiation	1.00	5.00	3.30	1.06
Behaviour Change Maintenance	1.00	5.00	3.66	0.97
Ease of Change Adaptation	1.00	7.00	4.20	1.52

Source: Field Data (2021)

Antecedents of change motives:

A mean of approximately 5 (slightly agree) was obtained from self-concerns, health concerns, social influence, and situational influence, implying that the respondents agreed that self-concerns, health concerns, social influence, and situational influence were key factors influencing their change motives. Comparatively, the most critical change motive influence was the social influence, followed by self-concerns, situational influence, and health concerns.

Antecedents of marketing functions:

A mean of approximately 5 (slightly agree) was obtained for alcohol placement, whereas a mean of approximately 4 (neutral) was obtained for alcohol product, price, and promotion, implying that the respondents agreed that alcohol placement affects their efforts to quit. They were, however, unsure of the effects of alcohol products, price, and promotion.

Self-efficacy and regulation

A mean of approximately 6 (agree) was obtained for both self-efficacy and self-regulation, implying that there was the existence of high self-efficacy and self-regulation among the participants.

Dependent variables: Change initiation and behaviour change maintenance

A mean of approximately 4 (frequently) was obtained behaviour change management, whereas a mean of 3 (occasionally) was obtained for change initiation, implying that behaviour change maintenance was frequent whiles change initiation was occasional.

Ease of change adaptation

A mean of approximately 4 (neither easy nor difficult) was obtained for ease of change adaptation, implying that change adaptation among the participants was neither easy nor difficult.

Normality for the latent variables

Normality tests for the thirteen latent variables of the study as well as "longevity of sobriety," were computed using skewness and kurtosis (Blanca et al., 2013). Before the computation of the normality test, the "longevity of sobriety" variable was converted into dummy variables where 0=less than 6 months and 1=6 months and above. The descriptive statistics performed using skewness, and kurtosis is presented in Table 7. All the skewness values of the thirteen latent variables were within -1.5 and +1.6, and the kurtosis values were all less than 2.7 showing the absence of significant outliers (Blanca et al., 2013) except self-efficacy, self-regulation, and longevity of sobriety (see appendix 3). Consequently, the researcher performed AMOS structural equation modeling with bootstrapping techniques to overcome the non-normality of some of the latent variables.

4.5.5 Correlation Matrix

The correlation matrix for the fourteen variables is presented in Table 8. The correlation matrix helps to examine the possibility of multicollinearity among the variables (Hair et al., 2017). It can be observed that none of the correlations was above 0.70; therefore, there were no multicollinearity problems (Gerbing & Anderson,1988; Hair et al., 2010).

Table 8: Correlation Matrix

Constructs	1	2	3	4	5	6	7	8	9	10	11	12
1. Self-Concerns	1.000											
2. Health Concerns	0.661***	1.000										
3. Social Influence	0.668***	0.649***	1.000									
4. Situational Influence	0.628***	0.657***	0.666***	1.000								
5. Alcohol Product	0.192***	0.239***	0.191***	0.339***	1.000							
6. Alcohol Pricing	0.187***	0.229***	0.140***	0.290***	0.417***	1.000						
7. Alcohol Promotion	0.190***	0.253***	0.199***	0.341***	0.659***	0.496***	1.000					
8. Alcohol Placement	0.200***	0.224***	0.246***	0.200***	0.332***	0.222***	0.335***	1.000				
9. Self-Regulation	0.250***	0.274***	0.375***	0.358***	0.193***	0.173***	0.121**	0.331***	1.000			
10. Self-Efficacy	0.218***	0.231***	0.309***	0.321***	0.097*	0.062	0.031	0.198***	0.528***	1.000		
11. Change Initiation	0.490***	0.500***	0.556***	0.641***	0.298***	0.249***	0.268***	0.146***	0.327***	0.349***	1.000	
12. Behaviour Change Maintenance	0.430***	0.470***	0.532***	0.566***	0.221***	0.147***	0.169***	0.166***	0.353***	0.363***	0.695***	1.000
13. Ease of Change Adaptation	0.006***	-0.014	0.035	0.126**	-0.027	0.047	-0.066	-0.023	0.129**	0.240***	0.144**	0.210***
14. Longevity of Sobriety	0.214***	0.191***	0.186***	0.206***	-0.119**	0.013	-0.095*	-0.046	0.086	0.094*	0.277***	0.213***

Note:***p<0.001; **p<0.01; *p<0.05

Longevity of sobriety (dummy: 0=Less than 6 months; 1=6 months or more)

Source: Field Data (2021)

4.6 Objective 1

4.6.1 SEM Analysis

The SEM analytical tool was used to address the first objective of this study. SEM allows for evaluating both measurement and structural models of latent variables.

4.6.2 Hypotheses Results

The hypothesis results are presented based on the hypothesised relationships

H_1: Self-concerns have a significant positive influence on behaviour change initiation.

The relationship between self-concerns and change initiation was positive but not statistically significant ($\beta = 0.055$, $t=1.471$, $p=0.141 > 0.05$). Therefore, hypothesis **H1** was not supported in the present context.

H_2: Health concern has a significant positive influence on change initiation

The relationship between health concerns and change initiation was positive but not statistically significant ($\beta = 0.044$, $t=1.176$, $p=0.239 > 0.05$). Therefore, hypothesis **H2** was not supported in the present context.

H_3: Social influence has a positive influence on change initiation

There exists a positive and significant relationship between social influence and change initiation ($\beta = 0.247$, $t=6.571$, $p=0.000 < 0.001$). The stated hypothesis implies that social influence drives change initiation. Therefore, hypothesis **H3** was supported.

H_4: Situational influence has a positive influence on change initiation

There exists a positive and significant relationship between situational influence and change initiation (β = 0.458, t=12.219, p=0.000 < 0.001). The hypothesis implies that situational influence drives change initiation. Therefore, hypothesis **H4** was supported. *H_5: Brands have a significant positive influence on change initiation*

A significant relationship exists between alcohol brands and change initiation. The hypothesis implies that alcohol product brands drive change initiation (β = 0.113, t=3.020, p=0.000 < 0.003). Therefore, hypothesis **H5** was supported.

H_6: Pricing has a significant positive influence on change initiation

A positive and significant relationship exists between alcohol pricing and change initiation (β = 0.065, t=1.744, p=0.081 < 0.10). The results imply that alcohol pricing drives change initiation. Therefore, hypothesis **H6** was supported.

H_7: Promotions have a significant positive influence on change initiation

The relationship between alcohol promotion and change initiation was negative but not statistically significant (β = -0.010, t=-0.277, p=0.782 > 0.05). Therefore, hypothesis **H7** was not supported in the present context.

H_8: Placements have a significant positive influence on change initiation

The relationship between alcohol placements and change initiation was negative but not statistically significant (β = -0.056, t=-1.479, p=0.139 > 0.05). Therefore, hypothesis **H8** was not supported in the present context.

H_{9a}: Change initiation has a significant positive influence on change maintenance

A positive and significant relationship exists between change initiation and behaviour change maintenance ($\beta = 0.611$, $t=17.631$, $p=0.000 < 0.001$). The results imply that change initiation drives behaviour change maintenance. Therefore, hypothesis **H9a** was supported.

Mediation Test

In this section, the mediation test was performed using Hayes PROCESS macro (version 3.5) in SPSS. Using the bootstrapping approach, it allows for testing the significance of direct, indirect, and conditional direct and indirect effects (Hayes 2017). The mediation hypothesis is stated below:

H_{9b}: Change initiation mediates the relationship between change motives, marketing functions, and behaviour change maintenance.

The results of the mediation test using Hayes Process Macro 4 (Hayes, 2017) are presented in Table 9. From Table 9, change initiation mediates the relationship between social influence behaviour change management (indirect effect = 0.077, CI = 0.038 to 0.126). Also, change initiation mediates the relationship between situational influence and behaviour change maintenance (indirect effect = 0.139, CI = 0.094 to 0.185). However, change initiation does not mediate the remaining six dimensions (self-concerns, health concerns, alcohol product, alcohol price, alcohol promotion, and alcohol placements); their hypothesis H9b is partially supported.

Table 9: Mediation Test

Hypothesis	Mediation path	β	SE	LLCI(2.5%)	ULCI (97.5%)	**Mediation Type**	**Hypothesis results**
H9b	SC → CI → BCM	0.015	0.018	-0.019	0.051	No mediation	No Support
	HC → CI → BCM	0.012	0.017	-0.020	0.048	No mediation	No Support
	SocC → CI → BCM	0.077	0.022	0.038	0.126	Mediation	Supported
	StI → CI → BCM	0.139	0.023	0.094	0.185	Mediation	Supported
	AP → CI → BCM	0.031	0.017	-0.004	0.065	No mediation	No Support
	APr → CI → BCM	0.018	0.013	-0.008	0.044	No mediation	No Support
	APro → CI → BCM	-0.003	0.014	-0.030	0.026	No mediation	No Support
	APla → CI → BCM	-0.019	0.016	-0.053	0.013	No mediation	No Support

Note: SC (Self-concerns), HC (Health Concerns), SocI (Social Influence), StI (Situational Influence), AP (Alcohol Product); Apr (Alcohol Price), Apro (Alcohol Promotion), Apla (Alcohol Placement), CI (Change Initiation), BCM (Behaviour Change Maintenance)

*** p<0.001; **p<0.01; *p<0.05 (two-tail test)

Hayes Process Macro Model 4

H_{10}: Self-regulation has a significant positive influence on behaviour change maintenance

A positive and significant relationship exists between self-regulation and behaviour change maintenance ($\beta = 0.104$, $t=3.008$, $p=0.003 < 0.01$). The results imply that self-regulation drives behaviour change management. Therefore, hypothesis **H10** was supported.

Moderation Test

H_{11}: Sobriety longevity moderates the relationship between change initiation and change maintenance

The interaction between longevity of sobriety and change initiation had a significant positive effect on behaviour change maintenance ($\beta = 0.074$, $t=2.128$, $p=0.033 < 0.05$). The result implies that the positive relationship between change initiation and behaviour change maintenance is stronger when the longevity of sobriety is high rather than low. The interaction plot presented in Figure 11 further illustrates the moderating effect of the longevity of sobriety on the relationship between change initiation and behaviour change maintenance.

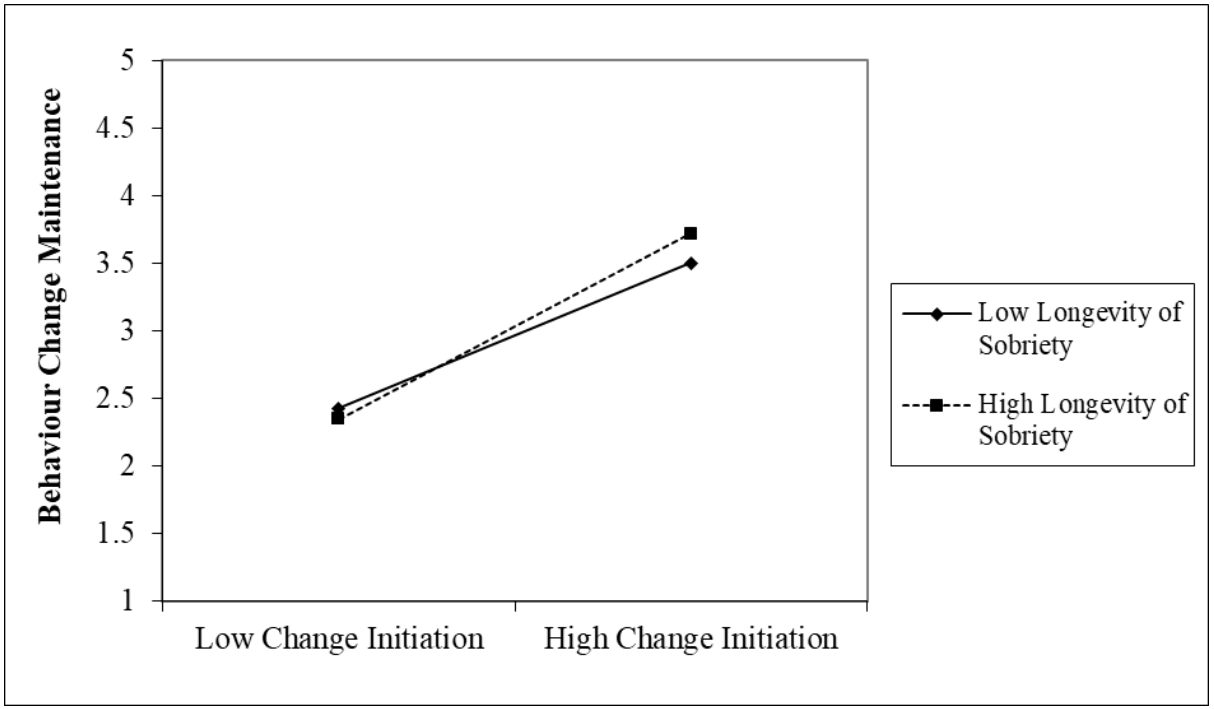


Figure 11: The moderating effect of the longevity of sobriety on the relationship between change initiation and behaviour change maintenance

H_{12}: Self-efficacy has a significant positive influence on behaviour change maintenance

A positive and significant relationship exists between self-efficacy and behaviour change management ($\beta = 0.094$, $t=2.711$, $p=0.007 < 0.01$). The results imply that self-efficacy drives behaviour change management. Therefore, hypothesis **H12** was supported.

H_{13}: Behaviour change maintenance has a significant positive influence on ease of change adaptation

Table 10 summarises the hypotheses test and conclusions made in this study. Of the Fourteen (14) hypotheses tested, nine (9) were supported, one (1) was partly supported, and four (4) were not supported. However, the study followed the best practices of reporting results from SEM analysis to arrive at the tested hypothesis conclusions. First, the measurement model results are reported with its model fit indices, followed by the structural model results.

Table 10: Summary of Hypotheses Assessment Support

Hypothesis	**Definition**	**β**	**t**	**Hypothesis supported**
H1	Self-Concerns has a positive effect on Change Initiation	0.055	1.471	Not Supported
H2	Health Concerns have a positive effect on Change Initiation	0.044	1.176	Not Supported

H3	Social influence has a positive effect on Change Initiation	0.247***	6.571	Supported
H4	Situational influence has a positive effect on Change Initiation	0.458***	12.219	Supported
H5	Alcohol Product Branding has a positive relationship with Change Initiation	0.113**	3.020	Supported
H6	Alcohol Pricing has a positive relationship with Change Initiation	0.065+	1.744	Supported
H7	Alcohol Promotions have a positive relationship with Change Initiation	-0.010	-0.277	Not Supported
H8	Alcohol Placements have a positive relationship with Change Initiation	-0.056	-1.479	Not Supported

H9a	Change Initiation has a positive relationship with behaviour change maintenance	0.611***	17.631	Supported
H9b	Change Initiation mediates the relationship between change motives, marketing functions, and behaviour change maintenance	0.077***	3.500	Partly Supported/*
H10	Self-regulation has a positive relationship with behaviour change maintenance	0.104**	3.008	Supported
H11	Longevity of sobriety fully moderates the relationship between Change Initiation and behaviour change maintenance	0.074*	2.128	Supported
H12	Self-efficacy has a positive relationship with behaviour change maintenance	0.094**	2.711	Supported

H13	Behaviour change maintenance has a positive effect on ease of change adaptation as an outcome	0.191***	4.342	Supported

Note:***p<0.001 **p<0.001; *p<0.05; +p<0.10 (Two-tail test)

/* mediation supported for social and situational influence

4.6.3 Structural Equation Modelling and Hypotheses testing

The structural model was assessed using the structural equation modeling software of IBM Amos version 23. The proposed hypotheses of this study were as follows:

Intrinsic Motives

H1: Self-Concerns has a positive effect on change initiation

H2: Health Concerns have a positive effect on change initiation

Extrinsic Motives

H3: Social influence has a positive effect on change initiation

H4: Situational influence has a positive effect on change initiation

Marketing Functions

H5: Alcohol Product Branding has a positive relationship with change initiation

H6: Alcohol Pricing has a positive relationship with change initiation

H7: Alcohol Promotions have a positive relationship with change initiation

H8: Alcohol Placements have a positive relationship with change initiation

H9a: Change initiation has a positive relationship with behaviour change maintenance

H9b: Change initiation mediates the relationship between change motives, marketing functions, and behaviour change maintenance

H10: Self-regulation has a positive relationship with behaviour change maintenance

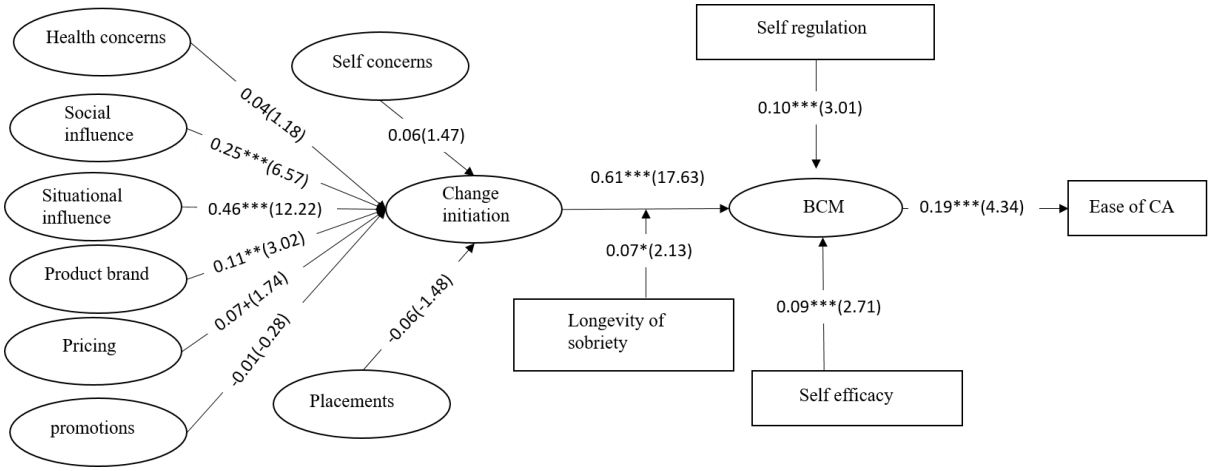
H11: longevity of sobriety fully moderates the relationship between change initiation and behaviour change maintenance

H12: Self-efficacy has a positive relationship with bahaviour change maintenance

H13: Behaviour change maintenance has a positive effect on ease of change adaptation as an outcome

Before the computation of the structural paths, the interaction between sobriety and change initiation longevity was calculated using a mean-centered approach (Aiken et al., 1991; Luo & Bhattacharya, 2006). The results of the structural model are presented in Figure 12 and Table 11.

Figure 12: The structural paths



Note: ***p<0.001 **p<0.001; *p<0.05; +p<0.10 (Two-tail test),
BCM: Behaviour Change Maintenance, CA: Change Adaptation
Source: Field Data (2021)

Table 11: Structural paths showing hypotheses test results

Hypothesis	Structural path			Beta	t-value	p	Hypothesis results
H1	Self-concerns	→	Change Initiation	0.055	1.471	0.141	Not Supported
H2	Health-concerns	→	Change Initiation	0.044	1.176	0.239	Not Supported
H3	Social Influence	→	Change Initiation	0.247	6.571	0.000***	Supported
H4	Situational Influence	→	Change Initiation	0.458	12.219	0.000***	Supported
H5	Alcohol Product	→	Change Initiation	0.113	3.020	0.003**	Supported
H6	Alcohol Pricing	→	Change Initiation	0.065	1.744	0.081+	Supported
H7	Alcohol Promotion	→	Change Initiation	-0.010	-0.277	0.782	Not Supported
H8	Alcohol Placement	→	Change Initiation	-0.056	-1.479	0.139	Not Supported

H9a	Change Initiation →	Behaviour Change Maintenance	0.611	17.631	0.000***	Supported
H10	Self-Regulation →	Behaviour Change Maintenance	0.104	3.008	0.003**	Supported
H11	Longevity*ChangeInitiation →	Behaviour Change Maintenance	0.074	2.128	0.033*	Supported
H12	Self-Efficacy →	Behaviour Change Maintenance	0.094	2.711	0.007**	Supported
H13	Behaviour Change Maintenance →	Ease of Change Adaptation	0.191	4.342	0.000***	Supported

Note:***p<0.001 **p<0.001; *p<0.05; +p<0.10 (Two-tail test)

Source: Field Data (2021)

4.7 Objective 2

Logit analytical was used to address objective 2. Logit analysis uses statistical significance odds ratios of the predictor variables to explain the likelihood of changes in the categorical dependent variable.

4.7.1 Logit analysis

Table 12: Logit Analysis-Parameter Estimates

Dependent variable: Longevity of sobriety	**Independent variables**	**B**	**Std. Error**	**Wald**	**df**	**p-value**	**Odds Ratio**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
> More than 6 months	Intercept	0.730	0.569	1.642	1	0.200			
	Age group								
	20-29 yrs	-0.439	0.373	1.386	1	0.239	0.644	0.310	1.339
	30-39 yrs	-0.210	0.351	0.357	1	0.550	0.811	0.408	1.612
	40-49 yrs	-0.063	0.346	0.033	1	0.856	0.939	0.477	1.849
	Ref: 50 years+	0[b]			0				
	Gender								
	Male	-0.174	0.199	0.764	1	0.382	0.840	0.569	1.241
	Ref: Female	0[b]			0				
	Educational Level								
	No education	-0.754	0.739	1.040	1	0.308	0.471	0.111	2.003
	Matric	0.139	0.356	0.153	1	0.696	1.149	0.572	2.310
	Diploma	0.052	0.367	0.020	1	0.887	1.053	0.513	2.163
	Bachelor's degree	0.173	0.348	0.249	1	0.618	1.189	0.602	2.351
	Ref: Postgraduate degree	0[b]			0				

Income								
R0-R4,999	0.000	0.436	0.000	1	1.000	1.000	0.425	2.352
R5000-R9,999	0.486	0.420	1.335	1	0.248	1.626	0.713	3.706
R10,000-R19,999	-0.011	0.368	0.001	1	0.976	0.989	0.481	2.034
R20,000 - R29,000	-0.173	0.383	0.206	1	0.650	0.841	0.397	1.780
Ref: Over R30,000	0[b]			0				
Marital Status								
Cohabitating	-0.713	0.302	5.569	1	0.018*	0.490	0.271	0.886
Single	-0.699	0.246	8.059	1	0.004**	0.497	0.307	0.805
Divorced	-0.018	0.580	0.001	1	0.975	0.982	0.315	3.061
Widowed	0.164	0.911	0.032	1	0.857	1.178	0.198	7.027
Separated	-0.904	0.751	1.449	1	0.229	0.405	0.093	1.764
Ref: Married	0[b]			0				
Occupation								
Employed	-0.244	0.379	0.414	1	0.520	0.783	0.373	1.647
Entrepreneur	0.068	0.719	0.009	1	0.925	1.070	0.262	4.378
Student	-0.767	0.499	2.361	1	0.124	0.464	0.175	1.235
Self-employed	-0.591	0.399	2.196	1	0.138	0.554	0.254	1.210
Other	-0.265	0.569	0.217	1	0.641	0.767	0.251	2.340
Ref: Unemployed	0[b]			0				
Type of ex-drinker								
former alcoholic	0.776	0.261	8.869	1	0.003**	2.173	1.304	3.621
Ref: former frequent heavy social drinker	0[b]			0				
Ethnicity								
African	0.539	0.270	3.976	1	0.046*	1.715	1.009	2.913
Coloured	0.564	0.345	2.663	1	0.103	1.757	0.893	3.459
Indian	0.697	0.508	1.881	1	0.170	2.007	0.742	5.431
White	0[b]			0				

a. The reference category is: < Less than 6 months.

b. This parameter is set to zero because it is redundant.

Note:**p<0.001; *p<0.05

The significant determinants of the longevity of sobriety were marital status, type of ex-drinker, and ethnicity. Specifically, co-habiting ($p<0.05$) and being single ($p<0.01$) were significantly less likely to experience longevity of sobriety when compared with the married. Former alcoholics were significantly more likely to experience longevity of sobriety than former frequent heavy social drinkers ($p<0.01$). Africans were significantly more likely to experience longevity of sobriety than whites ($p<0.05$). Comparisons with another race were not statistically significant.

4.8 Objective 3

K-means clustering was the analytical tool used in addressing objective 3. K-means clustering separates the observed data into k clusters in which each data points to a cluster with the nearest mean.

4.8.1 Cluster analysis, optimal scaling, and descriptive analysis

4.8.1.1 People socialised with

Regarding people socialised with on a regular basis, most respondents prefer honest/sincere people for socialisation (50.3%). This is followed by mature (49.5%), authentic/real (45.9%), tough/rugged (44.7%), good looking (44.1%), macho (34.5%), unique/individualistic (28.9%), cool/hip (14.6%) and popular (14%) as shown in figure 13

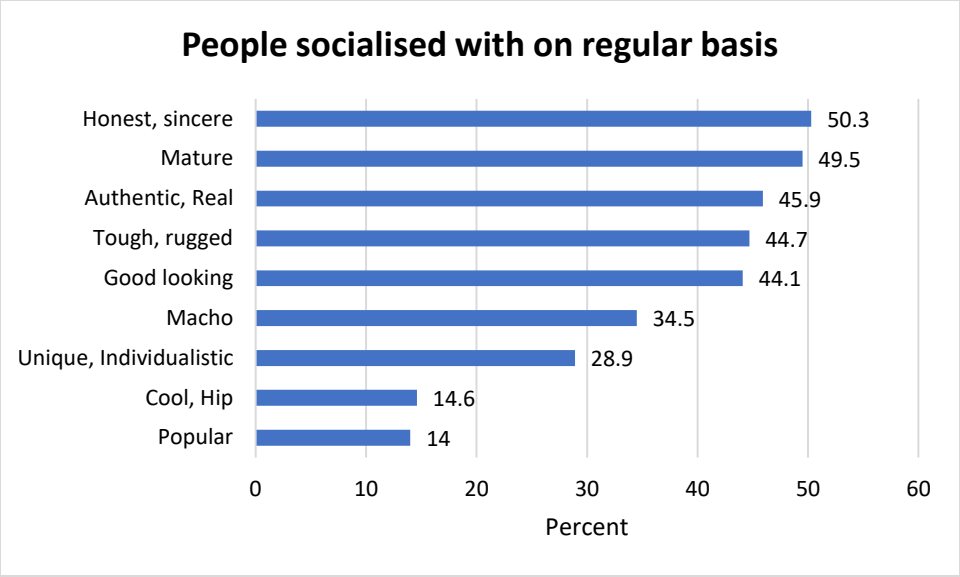


Figure 13: people socialised with regularly

A K-Means cluster analysis performed on the people the respondents socialise with on regular basis revealed two main clusters. The first cluster was popular, cool/hip, unique/individualistic, macho, tough/rugged, mature, and authentic/real. The second cluster had the characteristics of good-looking and honest/sincerity. The categorical principal component analysis procedure of optimal scaling (Gorsuch, 1983; Meulman et al., 2004) applied to the data shows the discrimination measures in Figure 14.

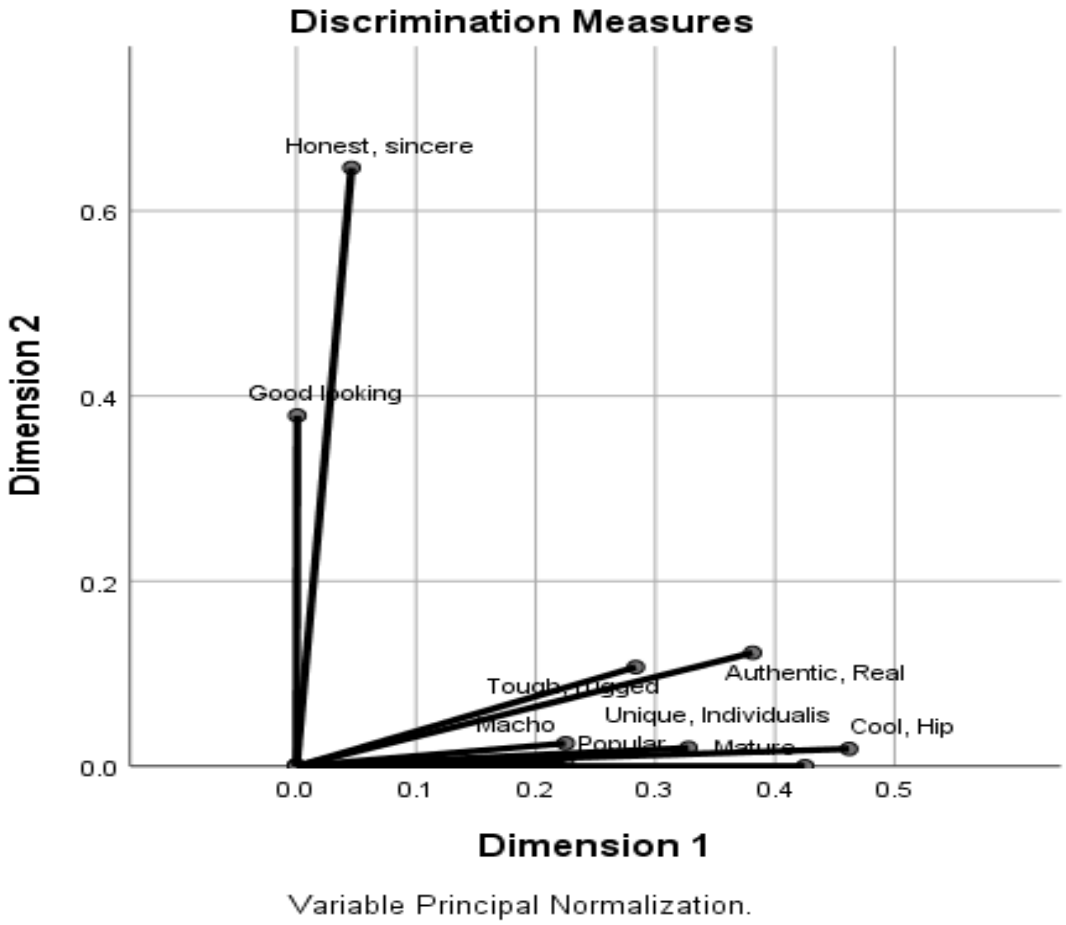


Figure 14: Discrimination Measures-**People socialised with on a regular basis**

4.8.1.2 Relationship interest

The central relationship interests of the respondents include "someone with shared interests and activities to spend time with" (97%), a long-term relationship (60.3%), and a relationship with growth potential (59.9%), as shown in Figure 15.

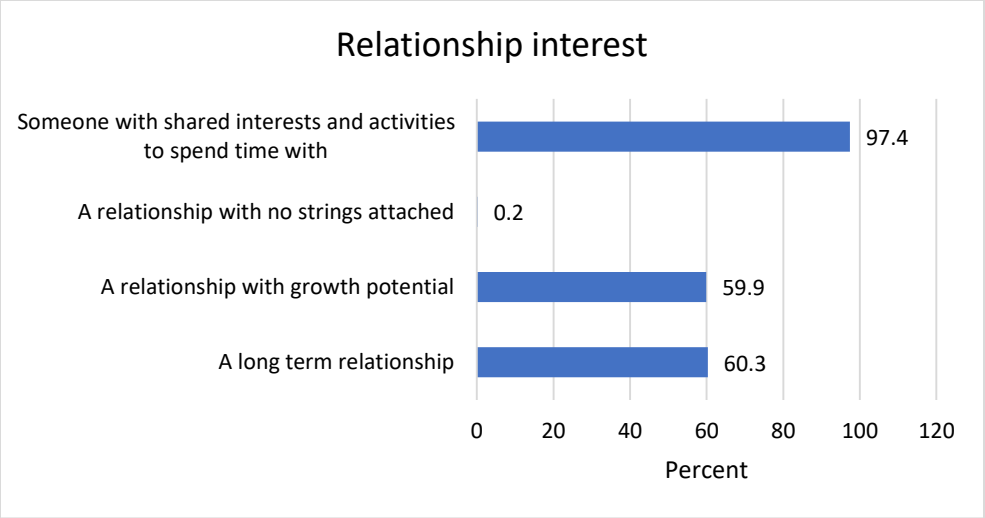


Figure 15: Relationship interest

A K-Means cluster analysis on "relationship interest" revealed two main clusters. The first cluster had the characteristics of "a long-term relationship" and "relationship with growth potential." The second cluster had "someone with shared interests and activities to spend time with." A categorical principal component analysis procedure of optimal scaling (Gorsuch, 1983; Meulman et al., 2004) applied to the data shows the discrimination measures in figure 16.

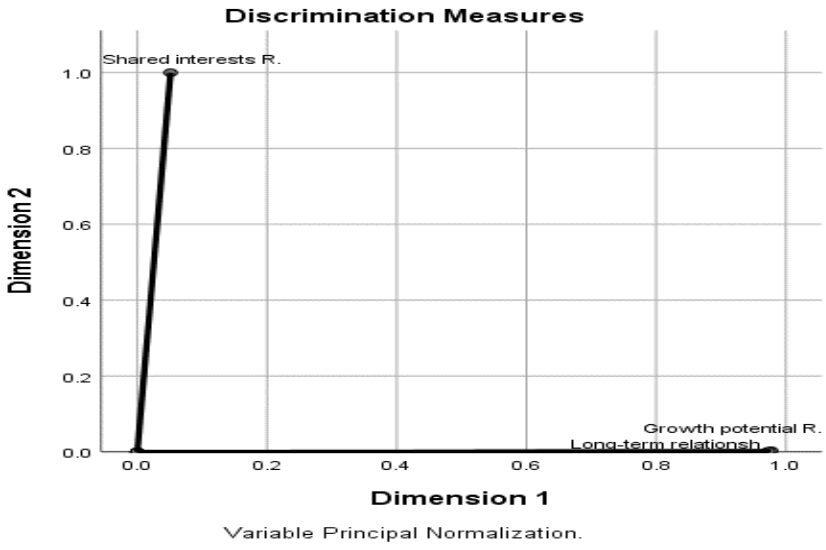


Figure 16: Discrimination Measures-**Relationship interest**

4.8.1.3 Ingredients of a good relationship

The majority of the respondents believe a relationship needs all four dimensions of emotionality (97%), spirituality (94.6%), physicality (94.2%), and intellectuality (94%) to work, as shown in Figure 17.

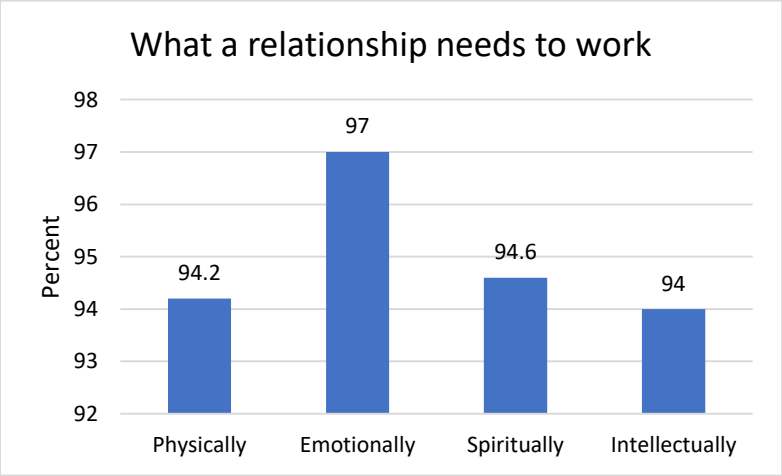


Figure 17: Ingredients of a relationship

A cluster analysis performed on "ingredients of a relationship" revealed two main clusters. The first cluster had the characteristics of physicality, spirituality, and intellectuality. The second cluster had emotionality. A categorical principal component analysis procedure of optimal scaling (Gorsuch, 1983; Meulman et al., 2004) applied to the data shows the discrimination measures in figure 18.

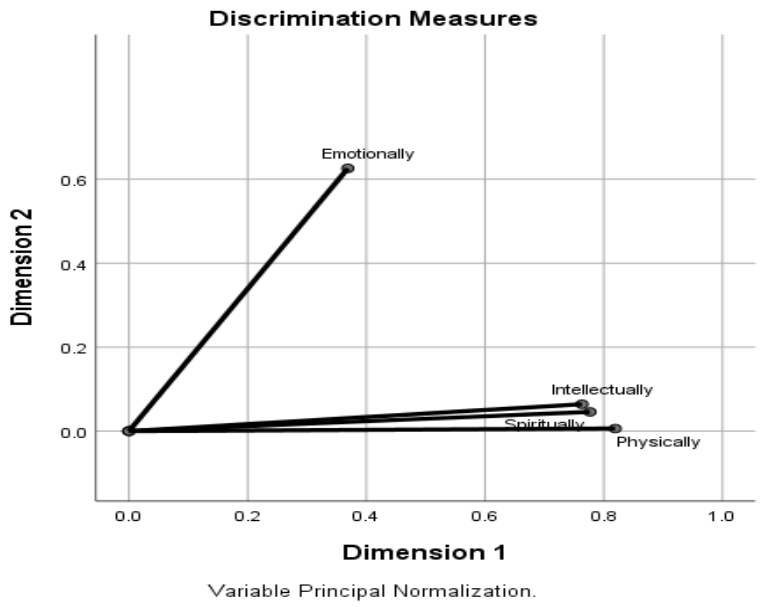


Figure 18: Discrimination Measures-**ingredients of a good relationship**

4.8.1.4 Party activities

When it comes to parties, the respondents severally admitted that activities including "just watching and hanging out" (98.6%), "worry about how they will feel in the morning" (97.4%), "finding the center of the party" (71.1%), "making the party happen" (70.5%), and "watching out for and taking care of friends" (61.7%) as shown in figure 19, portrays behaviour at parties.

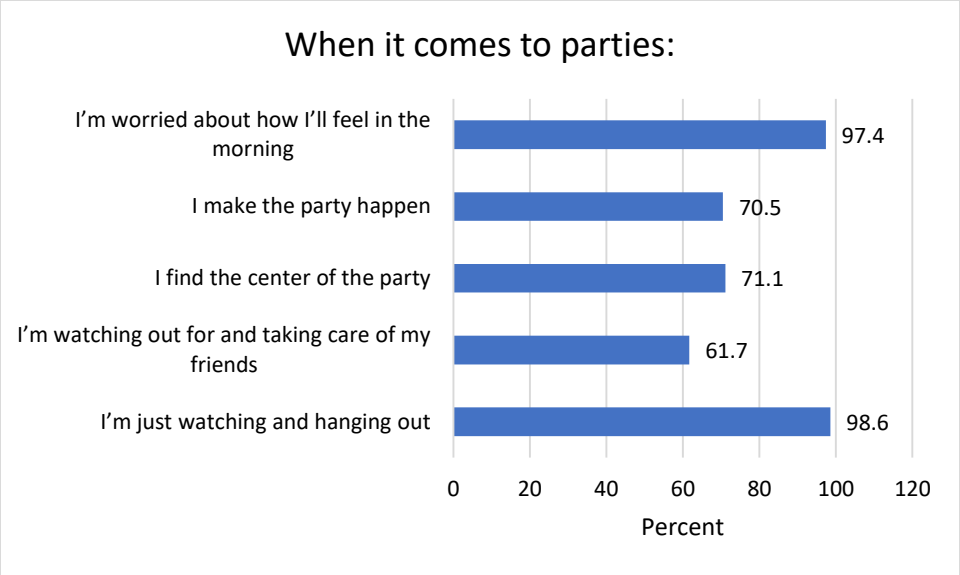


Figure 19: Party activities

A cluster analysis performed on "party activities" revealed two main clusters. The first cluster had the characteristics of "taking care of friends," "finding the center of the party," and "making the party happen." The second cluster had "just watching and hanging out" and "worry about how I will feel in the morning." A categorical principal component analysis procedure of optimal scaling (Gorsuch, 1983; Meulman et al., 2004) applied to the data shows the discrimination measures in Figure 20.

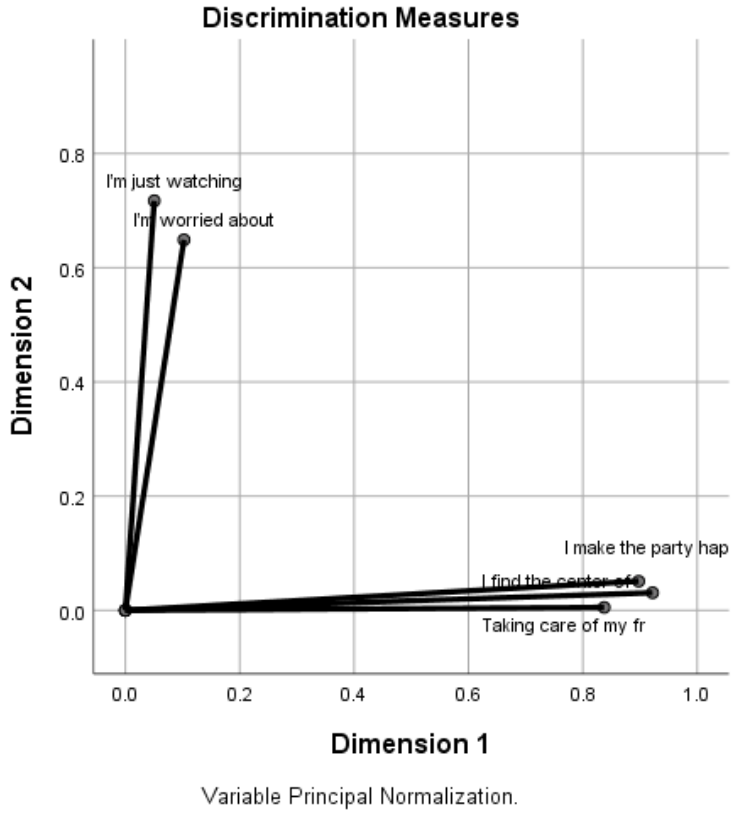


Figure 20: Discrimination Measures-**party activities**

4.8.1.5 Outing dressing

When the respondents get dressed to go out, they are mainly neatly dressed (99.8%), ready for a photo (74.9%), content with their clothing (74.3%), and likely to get compliments (74.1%), as shown in figure 21.

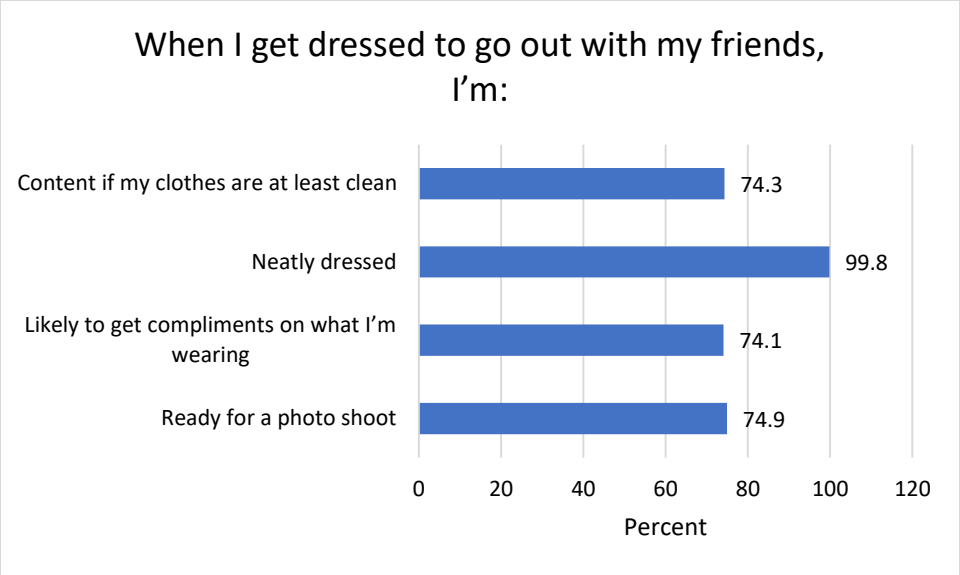


Figure 21: Outing dressing

A cluster analysis performed on "outing dressing" revealed two main clusters. The first cluster had the characteristics of "readiness for a photo shoot," "likely to get compliment," and "contentment with clothing." The second cluster had "neatly dressed." A categorical principal component analysis procedure of optimal scaling (Gorsuch, 1983; Meulman et al., 2004) applied to the data shows the discrimination measures in figure 22.

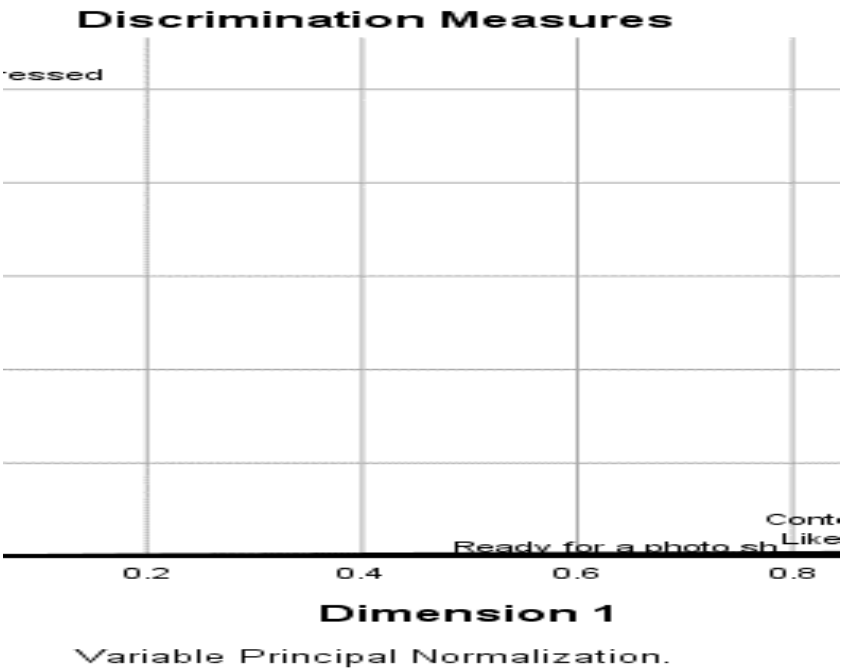


Figure 22: Discrimination Measures-**outing dressing**

5.0 CHAPTER FIVE

5.1 Discussion of Results

5.2 Introduction

This chapter discusses the implications of the results based on all three study objectives. The discussion begins with the results from SEM, logit, and k-means clustering analysis. The implication of the results was discussed based on the result's social, policy, and practical implications. Delimitations of the study were also discussed. Finally, conclusions and recommendations were adequately provided, while implications for future research were also provided.

5.3 Implications of results

5.3.1 Objective 1: discussion of the tested hypothesis

5.3.1.1 Intrinsic change motives

H_1: Self-concerns have a significant positive effect on behaviour change initiation.

Leading the discussion on the proximal factors is self-concern, which is the first intrinsic change motive construct measured. The study hypothesised that self-concern positively affects change initiation; however, the data did not support this hypothesis. Self-concern within the behaviour change literature has been conceptualised as the intrinsic motivation for driving action toward behaviour change (Pope et al., 2018). Based on this conceptualisation, it's natural that self-concerns would drive the audience to initiate behaviour changes. However, within this study, self-concerns do not drive change initiation ($\beta = 0.055$, $t=1.471$, $p=0.141 > 0.05$). The

forgone perhaps can be attributed to the large numbers of heavy social drinkers who accounted for 79% of the audience sampled as opposed to 22% of former alcoholics. As seen in the alcohol addiction literature, heavy, frequent social drinkers who have issues controlling the frequency of alcohol intake may not necessarily be bothered by the consequences of heavy drinking on their lives due to their ability to perform much of their social and economic activities.

The foregone implies that for any form of behaviour change to occur, it may require an external influence rather than an internal motivational factor such as self-concern. For most parts, internal motivations for behaviour change are relevant when it becomes the predominant concern for the individual at the center of the problem. These findings primarily depart from previous studies that have observed a strong effect of self-concerns in various forms in driving alcohol consumption behaviour change (see: Andrew et al., 2016); Pantalone, 2013; Ugochukwu et al., 2013). Because self-concern does not drive change initiation in this context, the result has implications for social marketing campaigns targeting behaviour change initiation with a strong emphasis on alcohol consumption and concern for self-image and the social and economic well-being of the audience.

H_2: Health concern has a significant positive influence on change initiation

The next intrinsic change motive proximal factor, health concern, was hypothesised to affect behaviour change initiation positively. However, similar to self-concern, the data did not support the hypothesised relationship. Health concern, the last intrinsic change motive construct, was found not to have any effect on change initiation ($\beta = 0.044$, $t=1.176$, $p=0.239 > 0.05$). Health concerns have to do with concern for one's health and health professionals admonishing the dangers of excessive consumption of alcohol. The results from the context of this research

showed that health concern was not significant in triggering behaviour change initiation and is a clear departure from the results of previous studies (see: Caluzzi et al., 2021; Moussaoui et al., 2021; Pettigrew et al., 2014). Perhaps the audience sampled might not have troubling or lingering health issues as a result of alcohol consumption or are seemingly not bothered by the advice either on alcohol labels or from health professionals on the dangers of excessive consumption.

There is enough evidence within the social marketing literature to show that persons triggering changes to alcohol consumption behaviours based on health concerns do so based on severe life-threatening health crises (see: Ayuka et al., 2014; Caluzzi et al., 2021 Davies et al., 2017), and perhaps as in this study if the health concerns don't become an eminent life-changing event then it risk inaction towards behaviour changes. These findings imply that social marketing efforts in targeting alcohol consumption behaviour changes need to paint a vivid picture of the health implications of the behaviour in a manner that resonates personally with the audience before an action towards change initiation can occur.

5.3.1.2 Extrinsic change motives

H_3: Social influence has a positive influence on change initiation

The data supported the hypothesised relationship between social influence and change initiation. Social influence significantly influenced behavior change initiation ($\beta = 0.247$, $t=6.571$, $p=0.000 < 0.001$). Social influence represents the social environment of the alcohol consumer where family members, significant others, friends, and professional work colleagues show concern about the excessive alcohol consumption habits of the consumer. The results show that the concerns of these social environment actors are enough to influence the consumer to begin changing consumption habits and make an extended effort towards sustaining the behaviour change. The results align with previous findings on the significant effect of social influence on behaviour change initiation (see: Bodnár et al., 2021; Salvy et al., 2014; Simons-Morton et al., 2016).

The results also re-emphasise the importance of a solid social network as a catalyst for behaviour change initiation and maintenance. Indeed, the social support system is so important that it has been described in the social marketing literature as the imperative for sustaining the gains after expert-guided change initiation efforts (Bodnár et al., 2021). To remain significant and accepted within the social structure of society, most alcohol users would prefer making concessions on their habits to total societal rejection. These results allow social marketers to strengthen the use of social networks such as those deployed by Alcohol Anonymous (AA) and other allies in their behaviour change programes, and also work with close relatives and friends of the consumer as social enforcers of behaviour change.

H_4: Situational influence has a positive influence on change initiation

Situational influence represents the current conditions of the alcohol consumed due to their continuous indulgence in the habit. The current situation ranges from unstable employment to depleting financial resources and absenteeism. Within the context of this study, the situational influence was found to significantly drive behaviour change initiation ($\beta = 0.458$, $t=12.219$, $p=0.000 < 0.001$), which is in line with previous studies confirming the role of situational influence in effecting behaviour change (see: Gold et al., 2020; Lechner et al., 2021; Wray et al., 2014). The fear of financial bankruptcy, loss of employment, and employment stability push the audience to change their consumption behaviour. Naturally, people react to situations that have the potential to threaten their livelihoods by making changes to habits that promotes such behaviours.

The findings have implications for social marketing behaviour change campaigns on alcohol consumption through messages on the dire economic consequences of inaction on the behaviour. More emphasis on situational influence and its long-term effect on the consumer's life would trigger behaviour change.

5.3.2.1 Distal factors

5.3.2.2 Marketing functions

H_5: Brands have a significant positive influence on change initiation

The data within the context of the study supported the hypothesis that alcohol brands would drive change initiation ($\beta = 0.113$, $t=3.020$, $p=0.000 < 0.003$). Essentially, the audience sampled for this study agreed that regardless of the branding efforts of their favourite alcohol brand, they would not be drawn into continuous consumption. Alcohol brands have, in recent

times, adapted sophisticated ways of portraying alcoholic beverages as lifestyle themes representing different generational life aspirations. These branding strategies keep the consumer interested and attentive to the brand. In this study, the audience's agreeableness to the potency of alcohol brands in inhibiting their ability to initiate behaviour changes was weak.

It's interesting to observe in this context that alcohol brands do not prevent behaviour change initiation but rather increase the resolve of consumers to drive behaviour changes. The foregone claim contradicts previous findings that found alcohol branding activities to negatively impede behaviour change initiation efforts (see: Dube, 2020; Liu et al., 2014; Wilkie & Rao Hill, 2022). This result is good news for policy formulators as far as alcohol de-marketing policy is concerned. If, in the eyes of alcohol consumers, alcohol brands are not an inhibitor to changing drinking habits; then fewer resources would be deployed to control the public branding efforts of these brands.

H_6: Pricing has a significant positive influence on change initiation

Alcohol pricing was found in this study context to influence behaviour change initiation ($\beta = 0.065$, $t=1.744$, $p=0.081 < 0.10$). The significant positive relationship between pricing and change initiation implies that alcohol pricing efforts, be it price increase or reduction, do not derail but rather promote the efforts of the audience to initiate consumption behaviour changes. These results also mean that pricing strategies such as promotional price reductions and segmented pricing tactics adapted by alcohol brands to encourage consumption might not work on a population determined to initiate behaviour changes, especially as seen with the alcohol quit sampled population in this study. The results further imply that pricing tactics might not succeed in some contexts in encouraging increased consumption or luring quitters back to consumption. This observation is an interesting finding, considering that pricing has not bothered high and

middle-income earners and does not play a significant role in their decision to quit, but it does for low-income earners.

Given that the audience sampled in this study has an even fair income distribution, it's safe to conclude that alcohol pricing did not inhibit the willingness to initiate behaviour changes across varying income levels. Broadly, this finding supports similar previous findings where alcohol pricing has been used to influence the reduction in consumption (see: Chaloupka et al., 2019; Jiang et al., 2020; Sharma et al., 2017); however, this study is unique in measuring the effects of pricing on change initiation. From a policy perspective, this finding would help the de-marketing efforts of alcohol products through increased taxation to protect low-income earners who may be lured back to consumption due to the availability of cheap alcohol.

H_7: Promotions have a significant positive influence on change initiation

Alcohol promotions had a non-significant negative effect on change initiation (β = -0.010, t=-0.277, p=0.782 > 0.05). This result implies that an increase in promotional activities would deter people from taking steps to change consumer behaviour. In this information age, alcohol promotional activities have become plural, often creating clusters of information on alcohol brands everywhere. This phenomenon creates an information siege or overload scenario where consumers and quitters find it challenging to escape. It appears from the result that even for quitters, the plethora of promotional mix strategies deployed by alcohol brands still attracts their attention and has the potential to make behaviour change difficult.

These findings confirm findings from previous studies on the ability of alcohol promotional activities to hinder behaviour change initiation efforts by promoting increased consumption (see: Atkinson et al., 2017; Matjila et al., 2021; Ross et al., 2014). With the

increased sophistication in alcohol promotion tactics, practitioners and policymakers would have difficulty dealing with quitters (in this study context) from relapsing and consumers for decreasing consumption. Policymakers looking to control the promotion of alcohol may need to strengthen advertising laws to curb its plurality to help in the change initiation efforts.

H_8: Placements have a significant positive influence on change initiation

Similar to promotion, alcohol distribution was also found to influence behaviour change initiation negatively, albeit not significantly ($\beta = -0.056$, $t=-1.479$, $p=0.139 > 0.05$). The negative influence of distribution implies that the more dense and wide distribution networks become, the higher the possibility of derailing behaviour change initiatives. The results again show that the audience at the stage of contemplating behaviour change would likely respond to the availability of alcohol through distributive networks by accessing the products, thereby derailing behaviour change efforts. Within the study context, the distribution of alcohol products, even for illegal brands, is efficient and effective, making the products easily accessible.

One of the best ways of helping with alcohol abuse is to make the product unavailable, at least far away from the domain of the person undergoing behaviour change. Unfortunately, the distributive networks of alcohol brands within this study context, even though regulated, still have some loopholes with so many illegal locally brewed brands in many neighbourhoods and townships. From a policy perspective, until the loopholes and law enforcement clamping down on illegal distribution networks are fully implemented, alcohol availability will continue to derail behavior change professionals' efforts. These findings agree with previous findings on the effect of alcohol availability on increased consumption (see: Ayuka et al., 2014; Fone et al., 2016; Gmel et al., 2016). This study, however, departs from the previous studies by measuring alcohol quitter's opinions on alcohol availability and how that affected their decision to quit.

H_{9a}: Change initiation has a significant positive influence on change maintenance

Change initiation was positively and significantly influenced behavior change maintenance ($\beta = 0.611$, $t=17.631$, $p=0.000 < 0.001$). This result confirms the transtheoretical model of behaviour change, which directly links behaviour change initiation efforts as the first activity is successfully executed before the sustenance of the behaviour change. The stages of change model postulate that the pre-contemplation stage must be used to move the audience from unwillingness to the action stage, where they become preoccupied with changing consumer behaviour. In social marketing literature, the contemplation stage is the most critical of the stages as it represents the difference between unwillingness and willingness (action stage). The results imply that successful management of the change initiation process could lead to a situation where the audience would resolve to sustain gains made from the change initiation process.

The results have implications for social marketing practitioners engaging in behaviour change campaigns to focus more on factors that help the audience enjoy the change process, remove barriers and elevate the benefits of the behaviour change to move the audience from contemplation and action to maintenance. The results also value identifying a theoretical framework for behaviour change campaign execution. With the confirmation of behaviour change initiation positive influence of change maintenance, the transtheoretical model can be used as the theoretical guide in alcohol consumption quit behaviour campaigns.

5.3.2.3 Mediation test

H_{9b}: Change initiation mediates the relationship between change motives, marketing functions, and behaviour change maintenance.

The data within the context of this study partly supported the mediation hypothesis The results show that change initiation only mediated the relationships between situational influence and behaviour change maintenance and social influence and behaviour change maintenance. In effect, change initiation only mediated the relationship between two extrinsic change motives and behaviour change maintenance. Interestingly, these same two extrinsic change motives significantly influenced change initiation. The mediation results imply that for situational and social influence to help the audience maintain the changed behaviour it must first trigger a positive influence on the change initiation process.

The ability of the audience to use their current situation and the influence of social support as the basis for initiating consumption behaviour changes would significantly affect their ability to sustain the changed behaviour. The results also have long-term implications for managing the sustenance of the changed behaviour. For example, situational and social influence on the audience change initiation ability would mean that these factors would continue to play critical roles in the maintenance of the changed behaviour using the social networks as a support system and the situational influence as a positive reinforcement of the benefits of the behaviour change. To the best of the researcher's knowledge, this is the first time change initiation has been used as a mediator between four (4) proximal factors and four (4) distal factors on behaviour change maintenance within the ecological behaviour system and therefore, this becomes one of the original contributions of this study to the behaviour change literature.

H_{10}: Self-regulation has a significant positive effect on behaviour change maintenance

H_0: Self-regulation has no significant effect on behaviour change maintenance

From the tested hypothesis, self-regulation significantly influences behaviour change maintenance positively ($\beta = 0.104$, $t=3.008$, $p=0.003 < 0.01$). This finding confirms previous studies' findings on the role of self-regulation in driving the maintenance of changed behaviour (see: Benka, 2017; Baumeister & Vonasch, 2014; Kwasnicka et al., 2016; Protogerou et al., 2020). Self-regulation is the capacity to organise and direct one's behaviour towards a specific goal amid changing environmental situations. In this study, self-regulation is critical in sustaining consumption quit behaviour. Self-regulatory capacity in this context would ensure that amid all macro-environmental factors, such as the promotion and distribution of alcohol products, the audience that has decided to quit consumption would resist the temptation of relapsing to old habits.

Self-regulatory capacity can safely be said to be one of the critical resources the individual needs to maintain quit consumption behaviour and sustain long-term gains. Although this vital skill differs in strength from person to person, social marketers and behaviour change practitioners such as psychologists need to deliberately develop self-regulatory skills as part of the program to help sustain the maintenance of changed behaviours. For example, the three-step self-regulatory approach from self-monitoring, self-evaluation, and self reinforcements could be incorporated into behaviour change programs to build the audience's capacity as a preventive relapse strategy.

H_{11}: Sobriety longevity moderates the relationship between change initiation and change maintenance

The tested moderating role of sobriety longevity is significant within this study context ($\beta = 0.074$, $t=2.128$, $p=0.033 < 0.05$). Thus, the interaction between sobriety longevity and change initiation significantly affects behaviour change maintenance. The foregone implies that the positive relationship between change initiation and behaviour change maintenance is further strengthened when sobriety of longevity is high rather than low. Therefore, for an audience undergoing behaviour change initiation, the longer they stay sober, the better the chances of transitioning between change initiation and change maintenance. As observed in the transtheoretical model of behaviour change, the seeming connection between change initiation in the form of taking action and maintenance of changed behaviour. Despite this theoretical progression, the practical transitioning of the audience from change initiation to maintenance is hinged on several factors, such as the individual's internal resources to self-regulate the behaviour of non-consumption towards a more extended sobriety period.

Longevity of sobriety, therefore, becomes a function of other internal individual resources which need to be managed together with other macro factors such as the promotion and distribution of alcohol products. For social marketers and allied health professionals in the behaviour change industry, equipping the audience with internal resources such as self-efficacy and regulatory skills to obtain longevity of sobriety as a strategy for transitioning from initiation to maintenance is a must-be strategy. Similarly, policymakers must manage the alcohol macro environment to restrict the promotion and distribution of alcohol products that tempt quitters to relapse or lower sobriety longevity. The findings fill a significant gap of paucity in research on the moderating role of sobriety longevity and remain an original contribution.

H_{12}: Self-efficacy has a significant positive influence on behaviour change maintenance

Similar to self-regulation, self-efficacy is another vital individual internal resource necessary for attaining behaviour change maintenance. Within this study, self-efficacy was found to significantly influence behaviour change maintenance positively ($\beta = 0.094$, $t=2.711$, $p=0.007 < 0.01$), thus confirming similar findings from previous studies (see: Blomqvist et al., 2003; Holloway et al., 2021; Sheeran et al., 2016). Self-efficacy describes the individual's belief in their capacity to deliver lifestyle changes. Due to individual differences, self-efficacy as an internal resource skill would not be at the same level for audience members undergoing behaviour change maintenance. Hence, there is a need to build and develop the skill of audience members deliberately. Strategies such as positive reinforcement and elevation of the benefits enjoyed above barriers would ensure audiences have the self-belief to sustain the changed behaviour long term.

Similarly, as in the case of self-regulation, an individual′s self-efficacy might threaten macro-environmental factors such as alcohol promotion and distribution. With increased temptation through alcohol promotion and distribution, self-efficacy may suffer some setbacks. Policymakers must, therefore, strengthen regulations that limit the effects of the promotion and distribution of alcohol products to encourage a stronger self-efficacy toward change maintenance. Social marketers and allied behaviour change professionals should also look at tools such as counseling and the provision and availability of role models as positive reinforcements of the maintenance behaviour.

H_{13}: Behaviour change maintenance has a significant positive influence on ease of change adaptation

Behaviour change maintenance within the context of this study was found to drive ease of change adaptation positively and significantly as well ($\beta = 0.191$, $t = 4.342$, $p = 0.000 < 0.001$). According to the transtheoretical stages of the change model, behavior change maintenance represents the stage where the audience strives to sustain the gains from the change initiation process. The sustenance of the gains depends on the level of new behaviour benefits and enjoyment experienced by the audience. At this stage, the benefits and enjoyment of the behaviour must exceed the apparent barriers. For change maintenance to influence ease of change adaptation positively means the audience has reached a point of normalising the new behaviour into a routine habit in such a manner that reflects the enjoyment of the new behaviour. The transition of the new behaviour into a routine behaviour also translates to ease of performing the new behaviour such that there might be a relapse in the absence of that ease.

Therefore, successful behaviour change maintenance is a precursor to easing the change adaptation into routine behaviour. For social marketers and allied behaviour change professionals, this finding is a huge lesson in not terminating the change campaign after the action stage but continuing to the maintenance stage to ensure audience guidance in maintaining the changed behaviour. In the long term, social marketers and allied behaviour change experts design programmes that build the capacity of audiences, remove barriers, and increase the benefits of the new behaviour to transition it into routine normal behaviour. This finding also represents one of the original contributions of this study to the behaviour change literature by introducing ease of change adaptation as an outcome of change maintenance within the behaviour change process.

5.4 Objective 2

5.4.1 Demographic determinants of the longevity of sobriety

5.4.1.1 Marital status

Marital status as a predictor of sobriety longevity (co-habiting $p<0.05$, single $p<0.01$) shows that cohabitating and single audience members are significantly less likely to experience sobriety when compared with the married. These results perhaps re-echo the long-standing importance of a stable relationship (in the case of co-habitation) and the presence of a social support system (in the case of the single) in relationships to help achieve longer sustained periods of sobriety. The dynamics of cohabitation, such as its apparent insecurities for both parties, do not offer the needed social and emotional long-term support that is the basis for sobriety longevity. Being single, though a natural choice for most people, does so little with the apparent absence of social support from the significant other in achieving sobriety longevity.

The literature on the importance of social support on the longevity of sobriety contends that single people find the behaviour change process a daunting task hence their high propensity to relapse to the old behaviour due to the absence of significant others' social support (Roesch-dietlen et al., 2021), subsequently, the perceived absence of social support increases the propensity to relapse and increase in consumption (see: Atadokht et al., 2015; Brooks et al., 2017; Drivers et al., 2019). The social support network's role in sustaining sobriety longevity is critical, as seen in the works of Alcohol Anonymous (AA) and other allied behaviour change-oriented organisations methodologies. Alcohol Anonymous emphasis on the sobriety maintenance self-help programme is hinged on AA's group support network meetings which help in some instances to fill the gap of social support absence.

5.4.1.2 Former heavy social consumers, former alcoholics, and sobriety longevity

The results from the logit analysis show that former alcoholics were more likely to maintain sobriety longevity ($p<0.01$) than former heavy social drinkers. This result appears to support the belief that the typology of alcohol consumers is vital in dealing with the problems associated with consumption. For example, heavy social consumers may not consume large volumes, but alcoholics are prone to heavy daily consumption. The effects of consumption on these two consumer typologies would not be the same. The alcoholic with frequent daily consumption is more likely to suffer social exclusion and financial stress due to stigmatisation whiles the heavy social consumer may likely maintain social connection and job stability.

Based on the severity and the risk associated with being labeled an alcoholic, those consumers who identify as alcoholics when in a quit behaviour state are more likely to do all it takes not to relapse to the old habits. For alcoholics, there is too much at stake to lose; therefore, striving to maintain a sober state allows them to enjoy the social inclusion and financial stability that comes with it. The results also seem to suggest that in the alcohol consumption environment, former heavy social consumers may be prone to external influences that may destabilise their sobriety status more than their alcoholic counterparts. Social marketers and health practitioners paying attention to alcohol behaviour change maintenance should segment the audience based on these two typologies and apply different strategies to each of them. For example, alcoholics need positive reinforcements and self-efficacy boosters. In contrast, heavy social consumers need reminders on the threshold of crossing to becoming alcoholics with the possibility of losing social inclusion and financial benefits. In both cases, the audience must benefit from becoming sober with no or reduced barriers.

5.4.1.3 Ethnicity and Sobriety Longevity

The logit analysis shows that Africans were more likely to sustain the longevity of sobriety than whites (Caucasians) ($p<0.05$). Ethnicity, with its cultural undertones, plays a significant role in helping former alcohol consumers sustain sobriety through various ethnic and cultural traits, such as the behaviour of the family system. The nuances in the ethnic and cultural practices make the difference between the failed and successful sobriety of the member. In this study, black Africans were in most of the sampled audience, making it plausible for black South Africans to use their cultural influences in alcohol sobriety decision-making. Due to the seemingly cultural undertones exhibited through ethnicity, the extended family system dominance in most African cultures may work through its social network ties to provide utility for the sustenance of sobriety.

As seen in the extant literature on ethnicity, culture, and sobriety, cultures with a high level of collectivism tend to cope with a drastic change in health-related behaviours. In this context, South Africa's black ethnic population has a long history of extended family systems or communal bonding where the responsibility of care and welfare is shared. For black South Africans to have a high propensity of sustaining sobriety longevity implies the existence of some form of solid social network bonds that facilitate the individual resolve to persist in sobriety. Overcoming the temptation of not relapsing takes more than the individual's self-efficacy; it involves having the needed social and emotional support and that sense of community care and love in the form of faith or neigbourhood based support system. For social marketers involved in behaviour change maintenance, ethnic demographic segmentation must be critical to help allocate resources effectively to varying groups that deserve more attention.

5.5 Objective 3

5.5.1 Psychographic clusters in a change maintenance behaviour

5.5.1.1 Socialisation associations

The cluster analysis revealed two clusters within socialisation activities of alcohol quitters seeking behaviour change maintenance. Socialisation in this context refers to those types (s) of people alcohol quitters prefer to hang out with. The clusters were *"popular, cool/hip, unique, individualistic, tough and authentic"* and *"good looking and honest."* In so many ways, the kinds of people alcohol quitters desire to socialise with reflect their values and social aspirations. People who reflect uniqueness, authenticity, good appearance, and honesty attract the attention of alcohol quitters due to the alignment of socialisation virtues. This result means that lifestyle segmentation within the health-related behaviour change maintenance market must consider segmentation based on socialisation activity that generates authenticity, individualism, good appearance, and honesty.

The results also show that in the long term, alcohol quitters in search of behaviour change maintenance would be successful in the maintenance behaviour if they associate with people who are outgoing (cool/hip), independent (individualistic), and genuine (authentic). They would do well with people who exhibit honesty and are mindful of their appearance (good-looking). According to Peter and Olson (1994), segmentation based on socialisation interest within the Activity Interest and Opinion (AIO) framework suits scenarios where behaviour reinforcements need to be done through social associations of the audience.

5.5.1.2 Relationship interest

The cluster analysis on relationship interest identified two "stable and growth-oriented relationship" clusters *and "shared interest and activities."* Alcohol quitters sampled in this study converged around the idea that relationships that offered stability and growth prospects and those that provided mutual interest and activities may provide the basis for sustaining behaviour change maintenance. The two clusters found in relationship interest further reiterate the importance of stable relationships and the shared interest in managing behaviour change maintenance. As seen in the first objective of this study, social influence was confirmed to have a direct effect on behaviour change maintenance (see Table 11). The two clusters identified here have social influence undertones seen in the need for stable and shared interest relationships, often found in committed relationships.

The findings further imply that in a social market of quitters of alcohol, the presence of dysfunctional, unstable relationships could be enough to trigger the likely relapse of the changed behaviour. Indeed, dysfunctional and unstable relationships have been identified in the social marketing literature as precursors of relapse in behaviour change (see: Bodnár et al., 2021; Salvy et al., 2014; Simons-Morton et al., 2016). For social marketers and allied behaviour change professionals, alcohol quitters who identify with stable and shared interest relationships are fertile grounds for using tools such as counseling to encourage healthy relationships among audience members (that's for those with existing significant others). The audience in this segment desires stable and mutually shared interest relationships, hence the need to encourage partners to explore and focus on areas of mutual interest and nature and have long-term goals for their relationships.

5.5.1.3 Characteristics of a working relationship

Two clusters were identified under the characteristics of "working relationship." The audience sampled came under the clusters of *"physicality, spirituality and intellectuality"* and *"emotionality."* The two clusters show that for a relationship to thrive, alcohol quitters look out for physical, spiritual, intellectual, and emotional elements as prerequisites for successful relationships. Relationships that offer physicality denote extreme affection and care; those that provide spirituality provide hope, assurance, and steadfastness, while intellectuality provides a conversational, steady, and engaging relationship. Emotionality provides empathy, attention, and strong bonds in relationships. In an alcohol-quit environment, an audience seeking to maintain changed behaviour needs these elements in relationships to help sustain the gains from the changed behaviour.

The cluster around spirituality in this study re-echoes the importance of spirituality in the journey to recovery and long-term sustenance of behaviour change of addictive substance abuse. The acknowledgment of a higher power or divine providence as a source of strength and comfort has been well practiced and documented by Alcohol Anonymous (AA) as a potent tool for alcohol quitters to stay sober and focused (Greenfield & Tonigan, 2013). The practical implication of these findings for social marketers and other behaviour change professionals is that they can create an atmosphere within strong social networks where strong emphasis is laid on intellectual, spiritual, physical (in-person meetings withholding of hands and hugs), and emotional support systems. While this is done, relatives and significant others of alcohol quitters can be counseled and supported to exhibit these qualities to encourage behaviour change sustenance.

5.5.1.4 Party activities

With regards to party activities, two clusters with the characteristics of *"taking care of friends," "making the party happen," and "just watching and hanging out," "worry about how I would feel in the morning"* represented party activities of alcohol quitters seeking long term sobriety. The first cluster, in summary, represents the theme of *"care and centre of attraction,"* and the second cluster denotes the theme of *"fun with caution."* For alcohol quitters in long-term sobriety mood, attending social events such as parties allows them to exhibit the trait of care for friends and making themselves the centre of attraction. They also exhibit the trait of having fun with caution, especially in the presence of alcohol, which poses a threat to sobriety. This finding is similar to the assertion in the social marketing literature that links alcohol quitters social activities to the need to feel they belong, be noticed, and be precautious of their behaviour as a preventive strategy of relapse and social stigma (see: Bischof et al., 2016; Crane & Easton, 2017; Hill & Leeming, 2014; Orford et al., 2013).

Social marketers and other allied professionals seeking to help quitters sustain gains made from behaviour change from alcohol consumption can design targeting and positioning strategies that appeal to and promotes "having fun with caution" and "attention-seeking behaviours" during parties. For example, a targeting message might be *"have fun, get noticed but don't forget to be careful."* This message can be positioned as *"an essential requirement for staying 100% sober"*. The results also show proof of alcohol quitters' self-efficacy and regulation to remain sober, which is in line with the positive effect both self-efficacy and self-regulation had on behaviour change maintenance in the first objective of this study.

5.5.1.5 Outing dressing

The activity of dressing up to step out revealed two clusters among alcohol quitters. The first cluster had the characteristics of *"readiness for a photo shoot," "likely to get compliment," and "contentment with clothing."* This cluster characteristic can be summarised as *"self-confident dressing to impress."* The second cluster of *"neatly dressed"* describes how conscious alcohol quitters are with their dressing, which enforces the theme in the first cluster of confidently dressing to impress and attract attention. Perhaps in both party activity and outing dressing clusters, the search for attention and recognition, which is the norm for people in the state of sobriety looking forward to societal re-acceptance and social re-integration, is pretty loud. The art of dressing and readiness for a photo shoot and dressing for compliments all re-emphasise the desire of alcohol quitters to be seen and positioned as decent, responsible, fashionable, and confident members of society.

Segmenting alcohol quitters based on fashion interest and activity affects social market product targeting and positioning. Social marketing focusing on behaviour change sustenance can now design specific promotional messages that appeal to and reinforce the fashion sense of quitters. Since quitters thrive on getting attention and recognition for dressing well, behaviour change professionals can encourage and promote the art of appearing pleasant by using professional grooming experts. These grooming experts must show alcohol quitters ways of appearing presentable with the least minimum cost to not create barriers to change maintenance through the unaffordability of clothes and fashion accessories.

6.0 CHAPTER SIX

6.1 Conclusions and Recommendations

6.2 Introduction

This chapter presents the conclusions drawn from the findings and discussions of this study. It does so by focusing on the study's objectives and presenting the conclusions based on them. The delimitations, recommendations, and implications of the findings to future studies are equally presented.

6.3 Conclusions

The study sought to close a vital population gap in the social marketing literature by paying attention to an understudied population of alcohol quitters. The study argued that social marketing as a discipline needs to advance beyond behaviour change to adding behaviour change maintenance to its outlook, especially within the context of increasing relapse rates. In expanding the discussion and understanding of this understudied population, the study has three objectives: first, estimate the proximal and distal antecedents of change maintenance; second, estimate the demographic determinants of sobriety longevity; and lastly, determine the demographic determinants of sobriety longevity psychographic clusters in alcohol quitter's maintenance behaviour. The conclusions are discussed under each objective below:

6.3.1 Objective 1

The first hypothesis leading to objective one was the first intrinsic proximal construct of self-concerns. The relationship between self-concerns and behaviour change initiation was concluded as follows:

Self-concerns and behaviour change initiation

Self-concerns were found not to drive behaviour change initiation ($\beta = 0.055$, $t=1.471$, $p=0.141 > 0.05$). Self-concerns are the first intrinsic change motives that do not affect behaviour change initiation in this study context. This finding has implications for behaviour change initiation efforts using self-initiated methods through self-image awareness due to continuous alcohol consumption.

The second hypothesis tested the relationship between health concerns and change initiation. The relationship was concluded as follows:

Health concern and change initiation

The results show that health concerns, the second intrinsic change motive, did not initiate behavior change. Like self-concerns, health concerns did not significantly affect change initiation ($\beta = 0.044$, $t=1.176$, $p=0.239 > 0.05$). This finding has implications for social marketing behaviour change promotional messaging concentrated on health concerns and fear appeals. Once again, self-initiated behaviour change efforts solely based on the concerns for one's health as a consequence of the behaviour do not work in all cases.

Social influence was the first extrinsic change motive that drove the behaviour change motive. The relationship between social influence and change initiation was concluded as follows:

Social influence and change initiation

The social influence, including relationships with family, friends, and colleagues, significantly influenced behavior change initiation. These results ($\beta = 0.247$, $t=6.571$, $p=0.000 < 0.001$) show that people care and value their social relationships so much that it drives their initiation of behaviour changes to unhealthy behaviour such as excessive alcohol consumption. Social marketers should look beyond self-promoting factors that trigger behaviour changes to extrinsic factors that significantly influence the individual.

The second extrinsic change motive was the situational influence to effect behaviour change initiation. The relationship between situational influence and change initiation was concluded as:

Situational influence and change initiation

Similar to social influence, situational influence, which looks at how the personal job prospects, rental outcomes, and the perception of employers affects the general well-being of the individual, significantly affected behaviour change initiation . ($\beta = 0.458$, $t=12.219$, $p=0.000 < 0.001$). The results show that it is possible to use situational circumstances such as loss of job, depleting income, and rental space rejection as “fear appeals” nudges to effect behaviour changes.

The relationship between alcohol brands and change initiation was concluded as follows:

Brands and change initiation

Alcohol brand influenced behaviour change initiation significantly ($\beta = 0.113$, $t=3.020$, $p=0.000 < 0.003$). For individuals seeking to alter their consumption behaviour, the result shows that alcohol brands form part of the marketing activities that sway consumers in changing consumption behaviour. These results have policy implications for alcohol branding regulations. Even though alcohol branding pushes consumers to make consumption changes, its extensiveness and entrenchment may derail the efforts to initiate behaviour changes. Regulations that keep it in check would enhance change initiation efforts.

The relationship between alcohol pricing and change initiation was concluded as follows:

Pricing and change initiation

The results ($\beta = 0.065$, $t=1.744$, $p=0.081 < 0.10$), show that alcohol pricing drives behaviour change initiation. Alcohol pricing, just like branding, becomes one of the factors considered by alcohol consumers in altering consumption behaviour changes. The result also shows that individuals would initiate behaviour changes regardless of the alcohol price increment or reduction. The finding implies that alcohol pricing strategies by alcohol producers to attract continuous indulgence might not be effective. The forgone implication is by no means underplaying the importance of regulations to check alcohol pricing to encourage continuous consumption.

The relationship between alcohol promotion and change initiation was concluded as follows:

Promotions and change initiation

Alcohol promotion is the first marketing activity that does not initiate behavior change ($\beta = -0.010$, $t=-0.277$, $p=0.782 > 0.05$). This finding implies that an individual's decision to initiate changes in consumption behaviour does not include considering alcohol promotions. The results have implications for an unregulated alcohol market, such as South Africa promoting the continuous consumption of alcohol.

The relationship between alcohol placements and change initiation was concluded as follows:

Placements and change initiation

Alcohol placements/distribution is the second marketing activity that does not promote behaviour change initiation ($\beta = -0.056$, $t=-1.479$, $p=0.139 > 0.05$). This finding has implications for policy on the regulation of alcohol distribution. Unregulated distribution of alcohol products tends to make alcohol products easily accessible and promote the continuous use of alcohol.

The relationship between change initiation and behaviour change maintenance was concluded as*:*

Change initiation and change maintenance

Behaviour change initiation drives change maintenance ($\beta = 0.611$, $t=17.631$, $p=0.000 < 0.001$). This finding has a theoretical implication by confirming the transtheoretical model of behaviour change, which posits that behaviour changes go through different stages, including transitioning from change initiation to behaviour maintenance mode.

The mediating role of change initiation was concluded as follows:

The mediating role of change initiation in the relationship between change motives, marketing functions, and behaviour change maintenance.

The result shows that change initiation partially mediates the relationships between change motives, marketing functions, and behaviour change maintenance. The foregone means for individuals in an alcohol-quit setting seeking to sustain sobriety, some proximal and distal factors might need to go through a change initiation process. In contrast, others might not need change initiation as a mediator before activating maintenance mode.

The relationship between self-regulation and behaviour change maintenance was concluded as follows:

Self-regulation and behaviour change maintenance

The findings show that self-regulation drives maintenance of behavior change ($\beta = 0.104$, $t=3.008$, $p=0.003 < 0.01$). Social marketing programmes targeting change maintenance should

develop individuals′ ability to self-regulate their actions and desires as a strategy for building capacity for sustaining sobriety.

The moderating role of sobriety longevity in the relationship between change initiation and change maintenance

The tested moderating role of sobriety longevity in the relationship between change initiation and change maintenance shows that longevity of sobriety fully moderates the relationship between change initiation and behaviour change maintenance ($\beta = 0.074$, $t=2.128$, $p=0.033 < 0.05$). The finding means the longer the sobriety longevity, the better the relationship between change initiation and maintenance.

Self-efficacy and behaviour change maintenance

The result shows that self-efficacy maintains behaviour change ($\beta = 0.094$, $t=2.711$, $p=0.007 < 0.01$). Similar to self-regulation, social marketers and allied experts must build the capacity of individuals to believe and take control of the success of their actions as a strategy for enhancing change maintenance.

Change maintenance and ease of change adaptation.

The relationship between behaviour change maintenance and ease of change adaptation was concluded as follows:

The results show that behaviour change maintenance drives the ease of change adaptation ($\beta = 0.191$, $t= 4.342$, $p= 0.000 < 0.001$). The foregone means for long-term change maintenance to become a routine lifestyle; the audience must feel and enjoy the benefits of the behaviour change with less resistance to translate into a new adapted lifestyle.

In conclusion, the first objective found six (6) proximal and two (2) distal factors as significant factors driving alcohol quit consumption behaviour maintenance.

6.3.2 Objective 2

Regarding the demographic determinants of sobriety longevity, the study concludes that ***marital status***, ***category of former drinkers,*** and ***ethnicity*** were significant predictors of sobriety longevity. Specifically, cohabitating and single people were less likely to experience sobriety longevity when compared to the married. Former alcoholics were more likely to achieve sobriety longevity than former heavy social drinkers. Black Africans were more likely to achieve sobriety longevity than whites. Married status and Black Africans' ability to achieve sobriety longevity underscores the importance of extensive social networks in behaviour change maintenance success.

6.3.3 Objective 3

In the last objective, the study concludes that within the alcohol quitter's behaviour maintenance lifestyle, ten (10) clusters hinging on lifestyle activities and interests were observed. Lifestyle activities and interests based on ***people socialised with on regular basis*** generated two clusters of *"unique and authentic"* and *"good-looking and honest."* ***Relationship interest*** generated two clusters of *"long-term and growth potential relationship"* and *"spending time with someone with a shared interest."* ***Elements of good relationship*** had two clusters *"physicality, spirituality, and intellectuality"* and *"emotionality."* ***Party activities*** had two clusters *"caring for friends and attention seeking"* and *"having fun with caution."* Lastly, the activity of ***outing dressing*** also had two clusters of *"readiness for a photo shoot and*

compliments" and *"neatly dressed."* These lifestyle clusters show the underlying activities and interest of alcohol quitters in long-term sobriety, which is critical in managing BCM.

6.4 Delimitations of the research

The study adopted a positivist paradigm in which statistical inferences were drawn based on the stated hypothesis and research questions. This quantitative stance, therefore, eliminated any possibility of any qualitative assessments. Therefore, conclusions drawn in this study are only limited to the rigour of the quantitative and cross-sectional assessment outcomes.

In tackling a less studied population, such as quitters of addictive substance intake, alcohol was preferred due to its open legal leeway and extensive marketing activities within the South African context. Again, all conclusions drawn from this study must be put in the context of alcohol quitters' behaviour within an emerging market. The findings might not hold for quitters of other addictive substances.

6.5 Recommendations

6.5.1 Implications for Practice

Social marketers and allied behaviour change management professionals can use the findings of this study in several ways. Firstly, social marketers seeking to initiate behaviour changes in alcohol consumption can use social influence tactics such as change advocacy using individual social networks. Social networks, such as significant others, friends, and work colleagues, can be positioned as pressure groups to initiate behavior change. Secondly, behaviour change campaign messages and counseling sessions should use situational influence themes such

as potential job loss, eviction from the rented apartment, and financial distress in persuasive communication to trigger changes in alcohol consumption habits. Thirdly, Self-efficacy and self-regulation skills should be taught and encouraged as a capacity-building tool for extended behaviour change maintenance. Lastly, encourage stable relationships and social ties to promote sobriety longevity, which would enhance the change initiation and BCM efforts.

It's not in all situations that the process of change initiation mediates the relationship between some proximal and distal factors and BCM. Hence, in developing a social marketing campaign strategy, fewer resources should be spent on using, for example, health concerns and self concerns tactics in influencing change initiation. Indeed, both health and self-concerns can be enough motivation to maintain the changed behaviour. All the alcohol marketing activities of product brands, pricing, promotion, and placements need scrutiny due to their potential to positively or negatively influence the BCM process. The study also shows that married, former alcoholics and Africans are likelier to do well with long-term sobriety than unmarried/cohabiting, former heavy social drinkers, and whites, respectively. The forgone statement implies that in the management of long-term sobriety, solid social ties through marriage should be encouraged; former heavy social drinkers don't have so much social baggage such as stigmatisation or extra motivation, perhaps using the underlying tones of economic and social ties lost as a strategy to avoiding relapse. More attention in the form of counseling should be given to other ethnic groups to help them achieve long-term sobriety.

The findings also present an opportunity for social marketing and other behaviour change professionals to use the activity and interest lifestyle clusters to segment, target, and position behaviour maintenance strategies. The cluster analysis shows that these lifestyle activities cut across the type of people alcohol quitters socialised with, their interest in relationships, elements

that make a relationship thrive, party activities, and dressing out interest. The clusters found in this study provide the possibility of having a lifestyle activity interest segment that allows for proper targeting and positioning of the BCM marketing activities of the proper social product development (long-term change maintenance), correct pricing (removing maintenance barriers and increasing the benefits), promotions (persuasive messages that target their lifestyles) and placements (designing and offering places of help and alternative avenues to support the lifestyle).

6.5.2 Implications for Theory

The results show that even for alcohol quitters seeking long-term sobriety, external factors such as alcohol marketing activities (distal) and personal factors such as social and situational influences affect behaviour change maintenance. This observation shows how the ecological system theory can be utilised to predict behaviour change maintenance. The results of this study also show that some proximal and distal factors do not need behaviour change initiation to be triggered before it affects behaviour change maintenance efforts. This observation means that some proximal and distal factors can directly change the course of behaviour maintenance efforts and can either be a source for relapse or motivation to hold the gains.

Therefore, the partial mediation role of change initiation in the relationship between the proximal, distal factors and BCM means that the macro and micro factors within the ecological system where the alcohol quitter resides have the propensity to affect behaviour change maintenance efforts regardless of the quitter's history with change initiation efforts. Prior change initiation efforts might not play any role when these macro and micro factors influence the BCM efforts. These have implications for using the stages of change model as framework in guiding behaviour changes within an existing ecological system. Lastly, BCM's ability to predict ease of

change adaptation is a testament to the positive outcomes a successful behaviour change maintenance programe can do, thus making the changed behaviour a routine performed easily. In the end, the study extends the stages of the change model with a functional outcome variable in the form of "ease of change adaptation" that measures the flexibility in performing the new behaviour.

6.5.3 Implications for Policy

Policymakers need to pay attention to the marketing activities of alcohol brands. The failure of change initiation in mediating the relationship between product brands, pricing, promotion, placements, and BCM means these marketing activities directly affect BCM. These marketing activities have the potential of derailing gains made from changed behaviour, hence the need to competently regulate the marketing activities of these brands. The South African alcohol regulation bill that has been in a state of inertia needs to quickly be revitalised to regulate the industry, especially concerning alcohol promotion and distribution. The bill needs to have far-reaching consequences for promoting alcohol on both traditional media and social media. The bill, which is, in essence, a central de-marketing framework for alcohol brands, must strictly approve and monitor alcohol distribution channels while enforcing the laws on illegal production and distribution of alcohol, especially within the townships.

6.5.4 Implications for Future Research

To my knowledge, this study is one of the few inquiries into an understudied population such as alcohol quitters. The quantitative approach of this study was intended to have an initial estimation of how proximal and distal factors affect BCM. Future research should adopt a qualitative methodology where these factors are assessed through in-depth interviews for deep

insights into how they affect alcohol quitters in long-term sobriety. An experimental design with a control group can be used to test the cause and effect of these factors on BCM to directly link specific factors (causes) to specific effects in BCM.

In conclusion, this study addressed a significant gap in social marketing by paying attention to the less-studied population of alcohol quitters. The main objective of this study was to examine how personal and external factors influence quitting intentions and behaviour change maintenance efforts of former alcohol consumers. The study equally sought to examine demographic predictors of sobriety longevity. And lastly, it explored psychographic clusters within behaviour change maintenance. With a quantitative study design and a cross-sectional time horizon for data collection, the study identified six proximal and Two distal factors. The results of the second objective identified the married, former alcoholics, and black Africans as more likely to achieve longevity of sobriety. In contrast, the last objective found ten (10) clusters in alcohol quit behaviour maintenance. The study's outcome holds enough value for practitioners and policymakers in the behaviour change space.

References

Acuff, S. F., Soltis, K. E., Dennhardt, A. A., Borsari, B., Martens, M. P., & Murphy, J. G. (2017). Future so bright? Delay discounting and consideration of future consequences predict academic performance among college drinkers. *Experimental and Clinical Psychopharmacology*, *25*(5), 412.

Addis, M., & Holbrook, M. . (2001). On the conceptual link between mass customisation and experiential consumption : An explosion of subjectivity. *Journal of Consumer Behaviour*, *1*(1), 50–66.

Adriaanse, M. A., Gollwitzer, P. M., De Ridder, D. T., De Wit, J. B., & Kroese, F. M. (2011). Breaking Habits With Implementation Intentions : A Test of Underlying Processes. *Personality and Social Psychology Bulletin*, *37*(4), 502–513. https://doi.org/10.1177/0146167211399102

Adu, J., & Oudshoorn, A. (2020). The Deinstitutionalization of Psychiatric Hospitals in Ghana : An Application of Bronfenbrenner ' s Social-Ecological Model The Deinstitutionalization of Psychiatric Hospitals in Ghana : An Application of Bronfenbrenner ' s Social-Ecological Model. *Issues in Mental Health Nursing*, *41*(4), 306–314. https://doi.org/10.1080/01612840.2019.1666327

Ahacic, K., Kennison, R. ., & Kåreholt, I. (2012). Changes in sobriety in the Swedish population over three decades: Age, period or cohort effects? *Addiction*, *107*(4), 748–755. https://doi.org/10.1111/j.1360-0443.2011.03692.x

Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.

Akbar, M. B., Garnelo-Gomez, I., Ndupu, L., Barnes, E., & Foster, C. (2021). An analysis of social marketing practice : Factors associated with success An analysis of social marketing practice : Factors associated with success. *Health Marketing Quarterly*, *0*(0), 1–21. https://doi.org/10.1080/07359683.2021.1997525

Akinola, A. . (2020). Land Reform in South Africa : Interrogating the Securitisation of Land Expropriation Without Compensation Land Reform in South Africa : Interrogating the Securitisation. *South African Journal of Political Studies*, *47*(2), 215–232. https://doi.org/10.1080/02589346.2020.1715178

Akkaya, M. (2021). Understanding the impacts of lifestyle segmentation & perceived value on brand purchase intention : An empirical study in different product categories. *European Research on Management and Business Economics*, *27*(3), 100155. https://doi.org/10.1016/j.iedeen.2021.100155

Akoojee, S. (2009). Scarce skills and public technical and vocational education and training in South Africa: Twin challenges or two sides of the same coin? *Southern African Review of Education with Education with Production*, *15*(2), 117–138.

Allen, H. ., Calhoun, B. ., Maggs, J. ., Allen, H. ., Calhoun, B. ., & High-risk, J. L. . (2020). High-risk alcohol use behavior and daily academic effort among college students. *Journal of American College Health*, *0*(0), 1–5. https://doi.org/10.1080/07448481.2020.1752697

Allen, L., Williams, J., Townsend, N., Mikkelsen, B., Roberts, N., Foster, C., & Wickramasinghe, K. (2017). Socioeconomic status and non-communicable disease behavioural risk factors in low-income and lower-middle-income countries : a systematic review. *The Lancet Global Health*, *5*(3), e277–e289. https://doi.org/10.1016/S2214-

109X(17)30058-X

Almestahiri, R., Rundle-Thiele, S., Parkinson, J., & Arli, D. (2017). The Use of the Major Components of Social Marketing : A Systematic Review of Tobacco Cessation Programs The Use of the Major Components of Social Marketing : A Systematic Review of Tobacco Cessation Programs. *Social Marketing Quarterly*, *23*(3), 232–248. https://doi.org/10.1177/1524500417704813

Alpert, F., Wilson, B., & Elliott, M. . (1993). Price Signaling : Does it Ever Work ? *Journal of Product & Brand Management*, *2*(1).

Alpert, M. ., & Witt, R. . (1973). Psychological market segmentation: An empirically derived typological approach. *Psychological Report*, *33*, 431–436.

Ameyibor, L. E. ., Anabila, P., & Saini, Y. . (2022). Brand positioning and business performance of alcoholic beverage firms in an emerging market context: the mediation effect of brand equity. *International Journal of Wine Business Research*, *34*(1), 133–154. https://doi.org/10.1108/IJWBR-11-2020-0056

Ammerman, A. ., Hartman, T., & Demarco, M. . (2017). Behavioral Economics and the Supplemental Nutrition Assistance Program_. *American Journal of Preventive Medicine*, *52*(2), S145–S150. https://doi.org/10.1016/j.amepre.2016.08.017

Amoateng, A. ., & Kalule-sabiti, I. (2012). Local governance and spatial distribution of resources : The need to harness traditional leadership for service delivery in South Africa Local governance and spatial distribution of resources : The need to harness traditional leadership for service delive. *Multi-, Inter- and Transdisciplinarity*, *6*(2), 36–54. https://doi.org/10.1080/18186874.2011.650848

Amodeo, M., & Kurtz, N. (1990). Cognitive processes and abstinence in a treated alcoholic population. *International Journal of the Addictions*, *25*(9), 983–1009.

Anderson, P. (2017). *The new governance of addictive substances and behaviours*. Oxford University Press.

Anderson, P., Donnell, A. ., Kaner, E., Anderson, P., & Donnell, A. . (2017). Managing Alcohol Use Disorder in Primary Health Care. *Current Psychiatry Representation*, *19*(79), 2–10. https://doi.org/10.1007/s11920-017-0837-z

Andreasen, A. R. (1995). Marketing social change. In *Jossey-Bass*.

Andreasson, S. (2011). Africa ' s prospects and South Africa ' s leadership potential in the emerging markets century Africa ' s prospects and South Africa ' s leadership potential in the emerging markets century. *Third World Quarterly*, *32*(6), 1165–1181. https://doi.org/10.1080/01436597.2011.584725

Andréasson, S., & McCambridge, J. (2016). Alcohol researchers should not accept funding from the alcohol industry: Perspectives from brief interventions research. *Journal of Studies on Alcohol and Drugs*, *77*(4), 537–540.

Andrew, R., Tiggemann, M., & Clark, L. (2016). Positive body image and young women's health: Implications for sun protection, cancer screening, weight loss and alcohol consumption behaviours. *Journal of Health Psychology*, *21*(1), 28–39. https://doi.org/10.1177/1359105314520814

Ann, L., Drph, K., Ann, L., Drph, K., Bond, J., & Msw, C. . (2008). Alcoholism Treatment Quarterly The Role of Religion , Spirituality and Alcoholics Anonymous in Sustained

Sobriety. *Alcoholism Treatment Quarterly*, *21*(1), 1–16. https://doi.org/10.1300/J020v21n01

Appiah, R., Danquah, S. ., Nyarko, K., Ofori-atta, A. L., & Aziato, L. (2017). Precipitants of Substance Abuse Relapse in Ghana : A Qualitative Exploration. *Journal of Drug Issues*, *47*(1), 104–115. https://doi.org/10.1177/0022042616678612

Arina, S. (2019). *Exploring Substance Use Disorder and a Sense of Belonging Among Male Youth (20-30 Years): A Case Study of Shoshanguve, Sanca (South African National Council on Alcoholism and Drug Dependence) Rehabilitation Centre, Pretoria*. University of Johannesburg.

Armitage, C. . (2009). Is there utility in the transtheoretical model ? *British Journal of Health Psychology*, 195–210. https://doi.org/10.1348/135910708X368991

Arndt, C., Davies, R., Gabriel, S., Harris, L., Makrelov, K., Robinson, S., Simbanegavi, W., Seventer, D. ., & Anderson, L. (2020). *Impact of Covid-19 on the South African economy An initial analysis* (Issue April).

Assari, S., & Lankarani, M. . (2016). Education and Alcohol Consumption among Older Americans; Black–White Differences. *Frontiers in Public Health*, *4*(April), 1–7. https://doi.org/10.3389/fpubh.2016.00067

Atadokht, A., Hajloo, N., Karimi, M., & Narimani, M. (2015). The Role of Family Expressed Emotion and Perceived Social Support in Predicting Addiction Relapse. *High Risk Behaviour Addict*, *4*(1), 1–5. https://doi.org/10.5812/ijhrba.21250

Atkins, L., Francis, J., Islam, R., Connor, D. ., Patey, A., Ivers, N., Foy, R., Duncan, E. ., Colquhoun, H., Grimshaw, J. ., Lawton, R., & Michie, S. (2017). A guide to using the

Theoretical Domains Framework of behaviour change to investigate implementation problems. *Implementation Science*, *12*(77), 1–18. https://doi.org/10.1186/s13012-017-0605-9

Atkinson, A. M., Ross-Houle, K. M., Begley, E., & Sumnall, H. (2017). An exploration of alcohol advertising on social networking sites: an analysis of content, interactions and young people's perspectives. *Addiction Research and Theory*, *25*(2), 91–102.

Avenell, A., Broom, J., Brown, T. ., Poobalan, A., Aucott, L., Stearns, S. ., Smith, W. C. ., Jung, R. ., Campbell, M. ., & Grant, A. . (2004). Systematic Review of the Long-Term Effects and Economic Consequences of Treatments for Obesity and Implications for Health Improvements. *Health Technology Assessment*, *18*(21). https://doi.org/10.3310/hta8210

Ayuka, F., Barnett, R., & Pearce, J. (2014). Neighbourhood availability of alcohol outlets and hazardous alcohol consumption in New Zealand. *Health & Place*, *29*, 186–199. https://doi.org/10.1016/j.healthplace.2014.07.002

Babor, T. . (2009). Alcohol research and the alcoholic beverage industry : issues , concerns and conflicts of interest. *Addiction*, *104*, 34–47. https://doi.org/10.1111/j.1360-0443.2008.02433.x

Babor, T. ., Robaina, K., & Jernigan, D. (2015). Vested Interests in Addiction Research and Policy The infl uence of industry actions on the availability of alcoholic beverages in the African region. *Addiction*, *110*(4), 561–571. https://doi.org/10.1111/add.12832

Badenhorst-Weiss, J., & Naudé, R. . (2020). The challenges behind producing a bottle of wine: Supply chain risks. *Journal of Transport and Supply Chain Management*, *14*(1), 1–15.

Baldwin, A. ., Rothman, A. ., Hertel, A. ., Linde, J. ., Jeffery, R. ., Finch, E. ., & Lando, H. . (2006). Specifying the Determinants of the Initiation and Maintenance of Behavior Specifying the Determinants of the Initiation and Maintenance of Behavior Change : An Examination of Self-Efficacy , Satisfaction , and Smoking Cessation. *Health Psychology*, *25*(5), 626 – 634. https://doi.org/10.1037/0278-6133.25.5.626

Balhara, Y. P. ., & Singh, S. (2020). Provisions for Health Sector Response to Substance Use Disorders in the Indian Policy : A Critique of the National Policy on Narcotic Drugs and Psychotropic Substances Provisions for Health Sector Response to Substance Use Disorders in the Indian. *Journal of Psychoactive Drugs*, *00*(00), 1–8. https://doi.org/10.1080/02791072.2019.1709000

Bamber, M. (2019). A New World Order for the Beer Industry : A Review of the Acquisition of SABMiller by Anheuser-Busch AB InBev. *Accounting Perspective*, *18*(2), 117–131. https://doi.org/10.1111/1911-3838.12197

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*(2), 122.

Bandura, A. (2000). *Self-efficacy: The foundation of agency. Control of human behavior, mental processes, and consciousness: Essays in honor of the 60th birthday of August Flammer*.

Baskin, A. L. (2012). *pplying diffusion of innovation theory towards understanding institutional capacity for social marketing adoption in public health organizations*. Fielding Graduate University.

Baumeister, R. ., & Vonasch, A. . (2014). Addictive Behaviors Uses of self-regulation to facilitate and restrain addictive behavior. *Addictive Behaviors*, *44*, 3–8.

https://doi.org/10.1016/j.addbeh.2014.09.011

Beard, E., Brown, J., West, R., Kaner, E., Meier, P., & Michie, S. (2019). Associations between socio-economic factors and alcohol consumption : A population survey of adults in England. *Plos One*, *14*(2), 1–15.

Bell, M. ., & Emory, C. . (1971). The Faltering Marketing Concept. *Journal of Marketing*, *35*(4), 37. https://doi.org/10.2307/1250455

Benka, J. (2017). Mental Health & Prevention Autonomous self-regulation and di ff erent motivations for alcohol use among university students. *Mental Health & Prevention*, *7*(June), 12–16. https://doi.org/10.1016/j.mhp.2017.06.002

Berg, C. . (2016). Preferred flavors and reasons for e-cigarette use and discontinued use among never , current , and former smokers. *International Journal of Public Health*, *61*(2), 225–236. https://doi.org/10.1007/s00038-015-0764-x

Berkman, E. T., Livingston, J. L., & Kahn, L. E. (2017). Finding the "self" in self-regulation: The identity-value model. *Psychological Inquiry*, *28*(2-3), 77-98.

Berg, C. J., Ling, P. M., Guo, H., Windle, M., Thomas, J. L., Ahluwalia, J. S., & An, L. C. (2010). Using market research to characterize college students and identify potential targets for influencing health behaviors. *Social Marketing Quarterly, 16*, 41–68. 10.1080/15245004.2010.522768

Bernhardt, J. ., Mays, D., & Hall, A. . (2012). Social marketing at the right place and right time with new media. *Journal of Social Marketing*, *2*(2), 130–137. https://doi.org/10.1108/20426761211243964

Bero, L. (2003). Implications for the tobacco industry documents for public health and policy. *Annual Review Public Health*, *24*, 267–88. https://doi.org/10.1146/annurev.publhealth.24.100901.140813

Berry, L. . (1995). Relationship Marketing of Services-- Growing Interest , Emerging Perspectives. *Journal of the Academy of Marketing Science*, *23*(4), 236–245.

Berry, T., Naylor, P. ., & Wharf-higgins, J. (2005). Stages of change in adolescents : an examination of self-efficacy , decisional balance , and reasons for relapse. *Journal of Adolescent Health*, *37*(6), 452–459. https://doi.org/10.1016/j.jadohealth.2004.09.019

Bertscher, A., London, L., & Orgill, M. (2018). Unpacking policy formulation and industry influence : the case of the draft control of marketing of alcoholic beverages bill in South Africa. *Health Policy and Planning*, *33*, 786–800. https://doi.org/10.1093/heapol/czy049

Besada, H., Winters, K., & Tok, E. (2013). South Africa in the BRICS: Opportunities, challenges and prospects. *Africa Insight*, *42*(4), 1–15.

Best, D., Beckwith, M., Haslam, C., Alexander Haslam, S Jetten, J., Mawson, E., & Lubman, D. I. (2011). Overcoming alcohol and other drug addiction as a process of social identity transition: The social identity model of recovery (SIMOR). *Addiction Research & Theory*, *24*(2), 111–123.

Bischof, G., Iwen, J., Freyer-adam, J., & Rumpf, H. (2016). Efficacy of the Community Reinforcement and Family Training for concerned significant others of treatment-refusing individuals with alcohol dependence : A randomized controlled trial. *Drug and Alcohol Dependence*, *163*, 179–185. https://doi.org/10.1016/j.drugalcdep.2016.04.015

Bishop, F. . (2018). Self-guided Change : The most common form of long-term , maintained health behavior change. *Health Psychology Open*, 1–14. https://doi.org/10.1177/2055102917751576

Bitner, M. ., Brown, S. ., & Meuter, M. . (2000). Technology Infusion in Service Encounters. *Technology Infusion*, *28*(1), 138–149.

Blanca, M. J., Arnau, J., López-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. Methodology. *European Journal of Research Methods for the Behavioral and Social Sciences*, *9*(2), 78.

Blecher, E. (2015). Taxes on tobacco, alcohol and sugar sweetened beverages: Linkages and lessons learned. *Social Science and Medicine, 136–137*, 175–179. https://doi.org/10.1016/j.socscimed.2015.05.022

Blois, K. . (1996). Relationship marketing in organizational markets : When is it appropriate ? RELATIONSHIP MARKETING : A PARADIGM SHIFT ? *Journal of Marketing Management*, *12*(1–3), 37–41. https://doi.org/10.1080/0267257X.1996.9964406

Blomqvist, O., Hernandez-Avila, C. A., Burleson, J. A., Ashraf, A., & Kranzler, H. R. (2003). Self-Efficacy as a Predictor of Relapse During Treatment for Alcohol Dependence. *Addictive Disorders & Their Treatment*, *2*(4), 135–145.

Bodnár, V., Nagy, K., Cziboly, Á., & Bárdos, G. (2021). Alcohol and Placebo : The Role of Expectations and Social Influence. *International Journal of Mental Health and Addiction*, 2292–2305.

Bond, L., Daube, M., & Chikritzhs, T. (2010). Selling addictions: Similarities in approaches

between Big Tobacco and Big Booze. *Australasian Medical Journal*, *3*(6), 325–332.

Borland, R., Segan, C., Velicer, W. F., Borland, R., Segan, C., & Velicer, W. F. (2007). Testing the transtheoretical model for smoking change : Victorian data Testing the Transtheoretical Model for Smoking Change : Victorian Data. *Australian Journal of Psychology*, *52*(2), 83–88. https://doi.org/10.1080/00049530008255372

Bouton, M. E. (2000). A learning theory perspective on lapse, relapse, and the maintenance of behavior change. *Health Psychology*, *19*(57).

Bradshaw, D., Groenewald, P., Laubscher, R., Nannan, N., Nojilana, B., Norman, R., Pieterse, D., Schneider, M., Bourne, D. ., Timæus, I. ., & Dorrington, R. (2003). Initial burden of disease estimates for South Africa, 2000. *Burden of Disease Research Unit, Medical Research Council of South Africa*.

Brennan, L., Previte, J., & Fry, M. . (2016a). Social marketing's consumer myopia: Applying a behavioural ecological model to address wicked problems. *Journal of Social Marketing*, *6*(3), 219–239. https://doi.org/10.1108/JSOCM-12-2015-0079

Brennan, L., Previte, J., & Fry, M. L. (2016b). Social marketing's consumer myopia: Applying a behavioural ecological model to address wicked problems. *Journal of Social Marketing*.

Brodie, R. ., Coviello, N. ., Brookes, R. ., Little, V., Brodie, R. ., Coviello, N. ., Brookes, R. ., Little, V., Roderick, J., & Nicole, E. (1997). Towards a paradigm shift in marketing ? An examination of current marketing practices Towards a Paradigm Shift in Marketing ? An Examination of Current Marketing Practices. *Journal of Marketing Management*, *13*(5), 383–406. https://doi.org/10.1080/0267257X.1997.9964481

Brogan, M. ., Prochaska, J. ., Prochaska, J. ., Kingston, W., & Island, R. (1999). Status in psychoterapy using the transtheoretical model. *Psychoterapy: Theory, Research, Practice, Training*, *36*(2), 105–113.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Brooks, A. ., Lòpez, M. ., Ranucci, A., Krumlauf, M., & Wallen, G. . (2017). Addictive Behaviors Reports A qualitative exploration of social support during treatment for severe alcohol use disorder and recovery. *Addictive Behaviors Reports*, *6*(June), 76–82. https://doi.org/10.1016/j.abrep.2017.08.002

Brown, J. M. (1998). Self-regulation and the addictive behaviors. In *Treating addictive behaviors* (In W. R. M, pp. 61–73). Plenum Press.

Brown, J. T., Davis, M. I., Jason, L. A., & Ferrari, J. R. (2014). *Stress and coping: The roles of ethnicity and gender in substance abuse recovery. In Creating Communities for Addiction Recovery*. Routledge.

Brown, K. . (2006). Defining the Product in a Social Marketing Effort. *Health Promotion Practice*, *7*(4), 384–387. https://doi.org/10.1177/1524839906291323

Budlender D. (2009). *National and Provincial Government Spending and Revenue Related to Alcohol Abuse*.

Bünzli, F., & Eppler, M. J. (2019). Strategizing for social change in nonprofit contexts : A typology of communication approaches in public communication campaigns. *Nonprofit Management and Leadership*, *29*(January 2018), 491–508.

https://doi.org/10.1002/nml.21346

Burch, E., Clark, D., & Hide, R. (1962). *The World of Business. Cameron, L., Pepper , J., & Brewer, N. (2013). Responses of young adults to graphic warning labels for cigarette packages. [published online ahead of print April 26, 2013]*. (S. and Shuster. (ed.)).

Burhanoglu, S., Sayar, G. H., Isik, U., Arikan, Z. E. H. R. A., Coşar, B. E. H. Ç. E. T., & Işık, E. (2014). Differences in executive functions and problem solving styles of protracted sober and relapsed alcohol-dependent patients. *Brain Disord Ther*, *3*(3), 123–129.

Byrne, B. M. (2013). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. Routledge.

Caldwell, A. ., Masters, K. ., Peters, J. ., Bryan, A. ., Hooker, S. ., Wyatt, H. ., & Hill, J. O. (2018). Harnessing centred identity transformation to reduce executive function burden for maintenance of health behaviour change : the Maintain IT model. *Health Psychology Review*, *12*(3), 231–253. https://doi.org/10.1080/17437199.2018.1437551

Čihovská, V. (2013). Social orientation of marketing concept. *Journal of Positive Management*, *4*(1), 52-62.

Caluzzi, G., MacLean, S., Livingston, M., & Pennay, A. (2021). No one associates alcohol with being in good health": Health and wellbeing as imperatives to manage alcohol use for young people. *Sociology of Health and Illness*, *43*(2), 493–509. https://doi.org/10.1111/1467-9566.13237

Campbell, A. N., Fisher, D. S., Picciano, J. F., Orlando, M. J., Stephens, R. S., & Roffman, R. A. (2004). Marketing Effectiveness in Reaching the Nontreatment-Seeking Marijuana Smoker

Marketing Effectiveness in Reaching the Nontreatment-Seeking Marijuana Smoker. *Journal of Social Work Practice in the Addictions*, *4*(1), 39–59. https://doi.org/10.1300/J160v04n01

Campbell, C. ., Hahn, R. ., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., Naimi, T. ., Toomey, T., Lawrence, B., & Middleton, J. C. (2009). The Effectiveness of Limiting Alcohol Outlet Density As a Means of Reducing Excessive Alcohol Consumption and Alcohol-Related Harms. *American Journal of Prventive Medicine*, *37*(6), 556–569. https://doi.org/10.1016/j.amepre.2009.09.028

Cappellen, P. ., Rice, E. ., Catalino, L. ., & Barbara, L. (2018). Positive affective processes underlie positive health behaviour change. *Psychology & Health*, *33*(1), 77–97. https://doi.org/10.1080/08870446.2017.1320798

Carpenter, M., Jardin, B., Burris, J., Mathew, A., Schnoll, R., Rigotti, N., & Cummings, K. (2013). Clinical strategies to enhance the efficacy of nicotine replacement therapy for smoking ceasation: A review of the literature. *Drugs*, *73*(5), 407–426.

Carr, A. (2014). The evidence base for couple therapy , family therapy and systemic interventions for adult-focused problems. *Journal of Family Therapy*, *36*, 158–194. https://doi.org/10.1111/1467-6427.12033

Carver, C. ., & Scheier, M. . (1982). Control Theory: A Useful Conceptual Framework for Personality-Social, Clinical, and Health Psychology. *Psychological Bulletin*, *92*(1), 111–135.

Casswell, S. (2004). Alcohol brands in young peoples everyday lives : New development in marketing. *Alcohol & Alcoholism*, *39*(6), 471–476. https://doi.org/10.1093/alcalc/agh101

Casswell, S., Huckle, T., Wall, M., & Parker, K. (2016). Policy-Relevant Behaviors Predict Heavier Drinking in Both On and Off Premises and Mediate the Relationship Between Heavier Alcohol Consumption and Age , Gender , and Alcohol Control Study. *Alcohol Clinical Experimental Research*, *40*(2), 385–392. https://doi.org/10.1111/acer.12947

Casswell, S., Morojele, N. E. ., Williams, P. ., Chaiyasong, S., Gordon, R., Gray-phillip, G., Cuong, P. ., Mackintosh, A., Halliday, S., & Railton, R. (2018). The Alcohol Environment Protocol : A new tool for alcohol policy. *Drug and Alcohol Review*, *37*(August), 18–26. https://doi.org/10.1111/dar.12654

Castonguay, L. ., Eubanks, C. ., Goldfried, M. ., Muran, J. . ., & Lutz, W. (2015). Research on psychotherapy integration: Building on the past, looking to the future. *Psychotherapy Research*, *25*(3), 365–382. https://doi.org/10.1080/10503307.2015.1014010

Cerdá, M., Johnson-lawrence, V. ., & Galea, S. (2011). Lifetime income patterns and alcohol consumption : Investigating the association between long- and short-term income trajectories and drinking. *Social Science & Medicine*, *73*(8), 1178–1185. https://doi.org/10.1016/j.socscimed.2011.07.025

Chaloupka, F. ., Powell, L. ., & Warner, K. . (2019). The Use of Excise Taxes to Reduce Tobacco , Alcohol , and Sugary Beverage Consumption. *Annual Review of Public Health*, *40*, 187-201.

Charlton, S. G., & Starkey, N. J. (2015). Driving while drinking: performance impairments resulting from social drinking. *Accident Analysis & Prevention*, *74*, 210–217.

Charman, A. J. ., Petersen, L. ., Piper, L., & Je, A. (2013). Enforced informalisation : The case of liquor retailers in South Africa Enforced informalisation : The case of liquor retailers in

South Africa. *Development Southern Africa*, *30*(4–5), 580–595. https://doi.org/10.1080/0376835X.2013.817306

Charman, A. J. E., Petersen, L. M., & Govender, T. (2014). Shebeens as spaces and places of informality , enterprise , drinking and sociability. In *South African Geographical Journal* (Vol. 96, Issue 1, pp. 31–49). Taylor & Francis. https://doi.org/10.1080/03736245.2014.896281

Chaudhry, P. ., Cesareo, L., & Pastore, A. (2019). Resolving the jeopardies of consumer demand : Revisiting demarketing concepts. *Business Horizons*, *62*(5), 663–677. https://doi.org/10.1016/j.bushor.2019.05.002

Chen, Y. ., Chen, C. ., & Liang-Jen, W. (2015). Predictors of Relapse and Dropout During a 12-Week Relapse Prevention Program for Methamphetamine Users Predictors of Relapse and Dropout During a 12-Week Relapse Prevention Program for Methamphetamine Users. *Journal of Psychoactive Drugs*, *47*(4), 317–324. https://doi.org/10.1080/02791072.2015.1071447

Chichirez, C. M., & Purcărea, V. L. (2018). Health marketing and behavioral change: a review of the literature. *Journal of Medicine and Life*, *11*(1), 15–19.

Choi, J. ., Chung, K., & Park, K. (2013). Psychosocial predictors of four health-promoting behaviors for cancer prevention using the stage of change of Transtheoretical Model. *Psycho-Oncology*, *2261*(April), 2253–2261.

Christie, J., Fisher, D., Kozup, J. ., Smith, S., Burton, S., & Creyer, E. . (2001). The Effects of Bar-Sponsored Alcohol Beverage Promotions Across Binge and Nonbinge Drinkers. *Journal of Public Policy & Marketing*, *20*(2), 240–253.

Christopher, M., Payne, A., & Ballantyne, D. (1991). *Relationship marketing: bringing quality customer service and marketing together*. Heinemann.

Chrzan, J. (2013). *Alcohol: Social drinking in cultural context*. Routledge.

Chuliá, H., & Llatje, O. (2016). Seasonal and Time-Trend Variation by Gender of Alcohol-Impaired Drivers at Preventive Sobriety Checkpoints. *Journal of Studies on Alcohol and Drugs*, *77*, 413–420.

Clark, P. . (2013). Toward a transtheoretical model of interprofessional education: Stages, processes and forces supporting institutional change. *Journal of Interprofessional Care*, *27*(1), 43–49. https://doi.org/10.3109/13561820.2012.730074

Comber, R., & Thieme, A. (2013). Designing beyond habit : opening space for improved recycling and food waste behaviors through processes of persuasion , social influence and aversive affect. *Personal and Ubiquitous Computing*, *17*(6), 1197–1210. https://doi.org/10.1007/s00779-012-0587-1

Conlon, C. ., & Rao, N. (2015). The Price of Liquor is Too Damn High : Alcohol Taxation and Market Structure The Price of Liquor is Too Damn High : Alcohol Taxation and Market Structure. *Wagner Research Paper*, *2*, 2–009.

Conner, M., & Norman, P. (2017). Health behaviour : Current issues and challenges. *Psychology & Health*, *32*(8), 895–906. https://doi.org/10.1080/08870446.2017.1336240

Conradie, B., Piesse, J., Thirtle, C., & Vink, N. (2018). Labour Demand in the Post-apartheid South African Wine Industry. *Journal of Agriculture Economics*, *69*(3), 815–832. https://doi.org/10.1111/1477-9552.12270

Copulsky, J. ., Wolf, M. ., & Copulsky, J. . (1990). Positioning for the Future. *The Journal of Business Strategy, August*, 16–20.

Cornelius, J. ., Maisto, S. ., Pollock, N. ., Martin, C. ., Salloum, I. ., Lynch, K. ., & Clark, D. . (2003). Rapid relapse generally follows treatment for substance use disorders among adolescents. *Addictive Behaviors*, *28*(2), 381–386.

Cotton, D., & Gielen, A. . (2004). Application of the Transtheoretical Model for HIV Prevention in a Facility-Based and a Community-Level Behavioral Intervention Research Study. *Health Promotion Practice*, *5*(2), 199–207. https://doi.org/10.1177/1524839903258765

Coulson, N. S, Ferguson, M. A., Henshaw, H., & Heffernan, E. (2016). Applying theories of health behaviour and change to hearing health research : Time for a new approach Applying theories of health behaviour and change to hearing health research : Time for a new approach. *International Journal of Audiology*, *55*(May), 99–104. https://doi.org/10.3109/14992027.2016.1161851

Coulson, Neil S. (2014). Sharing , supporting and sobriety : a qualitative analysis of messages posted to alcohol-related online discussion forums in the United Kingdom. *Journal of Substance Use*, *19*(1–2), 176–180. https://doi.org/10.3109/14659891.2013.765516

Coviello, N. ., Brodie, R. ., Brookes, R. ., Palmer, R. ., Coviello, N. ., Brodie, R. ., Brookes, R. ., Roger, A., Coviello, N. E., & Brodie, J. (2003). Assessing the Role of e-Marketing in Contemporary Marketing Practice. *Journal of Marketing Management*, *19*(7), 857–881. https://doi.org/10.1080/0267257X.2003.9728240

Coviello, N. ., Brodie, R. ., & Munro, H. . (1997). Understanding contemporary marketing : Development of a classification scheme Understanding Contemporary Marketing :

Development of a Classification Scheme. *Journal of Marketing Management*, *13*(6), 501–522. https://doi.org/10.1080/0267257X.1997.9964490

Crane, C. ., & Easton, C. . (2017). Integrated treatment options for male perpetrators of intimate partner violence. *Drug and Alcohol Review*, *26*(November 2015), 24–33. https://doi.org/10.1111/dar.12496

Creswell, K. G. (2021). Drinking together and drinking alone: A social-contextual framework for examining risk for alcohol use disorder. *Current Directions in Psychological Science*, *30*(1), 19–25.

Cunningham, J., Cameron Wild, T., Koski-Jännes, A., Cordingley, J., & Toneatto, T. (2002). A prospective study of quit attempts from alcohol problems in a community sample: Modeling the processes of change. *Addiction Research & Theory*, *10*(2), 159–173. https://doi.org/10.1080/16066350290017220

Curry, S. ., Wagner, E. ., & Grothaus, L. . (1990). Intrinsic and extrinsic motivation for smoking cessation. *Journal of Consulting and Clinical Psychology*, *58*(3), 310–316.

Cusmano, L., Morrison, A., & Rabellotti, R. (2010). Catching up Trajectories in the Wine Sector : A Comparative Study of Chile , Italy , and South Africa. *World Development*, *38*(11), 1588–1602. https://doi.org/10.1016/j.worlddev.2010.05.002

Dallow, C. ., & Anderson, J. (2003). Using Self-efficacy and a Transtheoretical Model Obese Women. *American Journal of Health Promotion*, *17*(6), 373–382.

Dann, S. (2010). Redefining social marketing with contemporary commercial marketing de fi nitions. *Journal of Business Research*, *63*, 147–153.

https://doi.org/10.1016/j.jbusres.2009.02.013

Davids, T., Vink, N., Cloete, K., Davids, T., & Vink, N. (2022). Agricultural Economics Research , Policy and Practice in Southern Africa Covid-19 and the South African wine industry Covid-19 and the South African wine industry. *Agrekon*, *61*(1), 42–51. https://doi.org/10.1080/03031853.2021.1975550

Davies, E. ., Conroy, D., Winstock, A. ., & Ferris, J. (2017). Motivations for reducing alcohol consumption : An international survey exploring experiences that may lead to a change in drinking habits. *Addictive Behaviors*, *75*(June), 40–46. https://doi.org/10.1016/j.addbeh.2017.06.019

Day, G. . (2000). Managing Market Relationships. *Journal of the Academy of Marketing Science*, *28*(1), 24–30.

Deliens, T., Clarys, P., Bourdeaudhuij, I. ., & Deforche, B. (2014). Determinants of eating behaviour in university students : a qualitative study using focus group discussions. *BMC Public Health*, *14*(53), 1–12.

Delker, E., Brown, Q., & Hasin, D. S. (2016). Alcohol consumption in demographic subpopulations: an epidemiologic overview. *Alcohol Research: Current Reviews*, *38*(1), 7.

Delobelle, P. (2019). Commentary Big Tobacco , Alcohol , and Food and NCDs in LMICs : An Inconvenient Truth and Call to Action. *International Journal of Health Policy Management*, *8*(12), 727–731. https://doi.org/10.15171/ijhpm.2019.74

Delobelle, P., Sanders, D., Puoane, T., & Freudenberg, N. (2016). Reducing the Role of the Food , Tobacco , and Alcohol Industries in Noncommunicable Disease Risk in South Africa.

Health Education & Behavior, *43*(15), 70S–81S. https://doi.org/10.1177/1090198115610568

Demir, B., Şahin, Ş. ., Elboga, G., & Unal, A. (2021). Substance use characteristics , treatment completion rates and related factors of patients in Gaziantep AMATEM in 2019 ; a retrospective study. *Journal of Substance Use*, *00*(00), 1–7. https://doi.org/10.1080/14659891.2021.1912202

Denzin, N. K., & Johnson, J. M. (2017). *The alcoholic society: Addiction & recovery of the self*. Routledge.

Department of Social Development. (2016). *Social Development conducts national audit of dependency treatment centres*. Drug Treatment Centres Come under the Spotlight. https://www.gov.za/speeches/drug-treatment-centres-come-under-spotlight-3-feb-2016-0000

Deshpande, S. (2004). *Applying social marketing concepts to promote responsible alcohol use among American college students*. The University of Wisconsin-Madison.

Deshpande, S., & Rundle-thiele, S. (2011). Segmenting and Targeting American University Students to Promote Responsible Alcohol Use : A Case for Applying Social Marketing Principles University Students to Promote Responsible Alcohol Use : A Case for Applying Social Marketing Principles. *Health Marketing Quarterly*, *9683*(28), 4. https://doi.org/10.1080/07359683.2011.623094

Dibb, S. (2017). Changing times for social marketing segmentation. In *In Segmentation in social marketing* (pp. 41–59). Springer.

Diclemente, C. ., Velasquez, M. ., & Rossi, J. . (1991). The Process of Smoking Cessation : An Analysis of Precontemplation , Contemplation , and Preparation Stages of Change The Process of Smoking Cessation : An Analysis of Precontemplation , Contemplation , and Preparation Stages of Change. *Journal of Consulting and Clinical Psychology*, *59*(2), 295–304. https://doi.org/10.1037/0022-006X.59.2.295

DiClemente, C. C. (2018). *Addiction and change: How addictions develop and addicted people recover*. Guilford Publications.

DiClemente, C. C., & Hughes, S. L. (1990). Stages of change profiles in alcoholism treatment. *Journal of Substance Abuse*, *2*, 217–235.

Dietrich, T., Rundle-Thiele, S., & Kubacki, K. (2017). *Segmentation in social marketing*. Springer.

Dingle, G. ., Stark, C., Cruwys, T., & Best, D. (2015). Breaking good : Breaking ties with social groups may be good for recovery from substance misuse. *British Journal of Social Psychology*, *54*, 236–254. https://doi.org/10.1111/bjso.12081

Djokic, N., Salai, S., Kovac-znidersic, R., Djokic, I., & Tomic, G. (2013). The Use of Conjoint and Cluster Analysis For Preference-Based Market Segmentation. *Engineering Economics*, *24*(4), 343–355.

Dombrowski, S. U., Knittle, K., Avenell, A., & Sniehotta, F. F. (2014). Long term maintenance of weight loss with non-surgical interventions in obese adults : systematic review and meta-analyses of randomised controlled. *BMJ*, *2646*(May), 1–12. https://doi.org/10.1136/bmj.g2646

Donovan, R. (2011). Social marketing ' s mythunderstandings. *Journal of Social Marketing, 2005*. https://doi.org/10.1108/20426761111104392

Donovan, R., & Henley, N. (2010). *Principles and Practice of Social Marketing: An international perspective*. Cambridge University Press.

Dreibelbis, R., Winch, P. ., Leontsini, E., Hulland, K. R. ., Ram, P. ., Unicomb, L., & Luby, S. . (2013). The integrated behavioural model for water, sanitation, and hygiene: a systematic review of behavioural models and a framework for designing and evaluating. *BMC Public Health, 13*(1015), 1–13.

Drivdal, L., & Lawhon, M. (2014). Plural regulation of shebeens (informal drinking places). In *South African Geographical Journal* (Vol. 96, Issue 1, pp. 97–112). Taylor & Francis. https://doi.org/10.1080/03736245.2014.896282

Duarte, N. (2013). *Resonate: Present visual stories that transform audiences*. John Wiley & Sons.

Dube, M. L. . (2020). *Using self-identity and brand personality in advertising appeals: a Unilever Dove case study*. University of Kwazulu Natal.

Duckworth, A. ., Milkman, K. ., & Laibson, D. (2019). Beyond Willpower : Strategies for Reducing Failures of Self-Control. *Psychological Science in the Public Interest, 19*(3), 102–129. https://doi.org/10.1177/1529100618821893

Dugdale, S., Elison, S., Davies, G., Ward, J., Dugdale, S., Elison, S., Davies, G., & Ward, J. (2016). Using the Transtheoretical Model to Explore the Impact of Peer Mentoring on Peer Mentors ' Own Recovery from Substance Misuse. *Journal of Groups in Addiction &*

Recovery, *11*(3), 166–181. https://doi.org/10.1080/1556035X.2016.1177769

Eddie, D., Vilsaint, C. ., Ho, L. ., Bergman, B. ., Kelly, J. ., & Hoeppner, B. . (2020). Journal of Substance Abuse Treatment From working on recovery to working in recovery : Employment status among a nationally representative U . S . sample of individuals who have resolved a signi fi cant alcohol or other drug problem. *Journal of Substance Abuse Treatment*, *113*(January). https://doi.org/10.1016/j.jsat.2020.108000

Ellaway, A., Macdonald, L., Forsyth, A., & Macintyre, S. (2010). Health & Place The socio-spatial distribution of alcohol outlets in Glasgow city. *Health & Place*, *16*(1), 167–172. https://doi.org/10.1016/j.healthplace.2009.08.007

Erol, S., Balci, A. ., & Sisman, F. . (2018). Effect of Transtheoretical Model Based Smoking Cessation Program on High Effect of Transtheoretical Model Based Smoking Cessation Program on High School Students. *Journal of Nutrition and Health Sciences*, *5*(3). https://doi.org/10.15744/2393-9060.5.301

Fallon, E. ., Hausenblas, H. ., & Nigg, C. . (2005). The transtheoretical model and exercise adherence : examining construct associations in later stages of change. *Psychology of Sport and Exercise*, *6*(6), 629–641. https://doi.org/10.1016/j.psychsport.2005.01.003

Farina, T., Sukandar, D., & Soehadi, A. . (2016). Segmentation of the tourism market for Jakarta : Classi fi cation of foreign visitors ' lifestyle typologies. *Tourism Management Perspectives*, *19*, 32–39. https://doi.org/10.1016/j.tmp.2016.03.005

Farrell, T., & Gordon, R. (2012). Critical social marketing : investigating alcohol marketing in the developing world. *Journal of Social Marketing*, *2*(2), 138–156. https://doi.org/10.1108/20426761211243973

Fat, L. ., Shelton, N., & Cable, N. (2018). Investigating the growing trend of non- drinking among young people ; analysis of repeated cross-sectional surveys in England 2005 – 2015. *BMC Public Health*, *18*(1), 1–10.

Fay, S. H. ., Hamilton, K., Chadwick, P. ., Lorencatto, F., Gianfrancesco, C., Zoysa, N. ., Coates, E., Cooke, D., Mcbain, H., Heller, S. R., & Michie, S. (2021). The DAFNE plus programme for sustained type 1 diabetes self management : Intervention development using the Behaviour Change Wheel. *Diabetic Medicine*, *February*, 1–11. https://doi.org/10.1111/dme.14548

Ferrari, J. ., Mba, E. B. ., & Jason, L. . (2009). The Role of Self-Regulation in Abstinence Maintenance : Effects of Communal Living on Self- Regulation The Role of Self-Regulation in Abstinence Maintenance : Effects of Communal Living on. *Journal of Groups in Addiction & Recovery*, *4*, 32–41. https://doi.org/10.1080/15560350802712371

Ferreira-Borges, C., Rehm, J., Dias, S., Babor, T., & Parry, C. D. (2016). The impact of alcohol consumption on African people in 2012 : an analysis of burden of disease. *Tropical Medicine & International Health*, *21*(1), 52–60. https://doi.org/10.1111/tmi.12618

Ferreira, S. L. ., & Hunter, C. . (2017). Wine tourism development in South Africa : a geographical analysis Wine tourism development in South Africa : a geographical. *Tourism Geographies*, *19*(5), 676–698. https://doi.org/10.1080/14616688.2017.1298152

Ferrie, J. E., Shipley, M. J., Stansfeld, S. A., & Marmot, M. G. (2002). Effects of chronic job insecurity and change in job security on self reported health, minor psychiatric morbidity, physiological measures, and health related behaviours in British civil servants: the Whitehall II study. *J Ournal of Epidemiol Community Health*, *56*, 450–454.

Fone, D., Morgan, J., Fry, R., Rodgers, S., Orford, S., Farewell, D., Dunstan, F., White, J., Sivarajasingam, V., Trefan, L., Brennan, I., Lee, S., Shiode, N., Weightman, A., Webster, C., & Lyons, R. (2016). Change in alcohol outlet density and alcohol-related harm to population health (CHALICE): a comprehensive record-linked database study in Wales. *Public Health Research*, *4*(3). https://doi.org/10.3310/phr04030

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: algebra and statistics. *Journal of Marketing Research*, *18*(3), 382–388.

Foskett, N. . (1998). Schools and marketization: Cultural challenges and responses. *Educational Management & Administration*, *26*(2), 197–210.

Foster, D. ., Yeung, N., & Neighbors, C. (2014). I think I can't: Drink refusal self-efficacy as a mediator of the relationship between self-reported drinking identity and alcohol use. *Addictive Behaviors*, *39*(2), 461–468. https://doi.org/10.1016/j.addbeh.2013.10.009

Fry, M. (2011). Seeking the pleasure zone : Understanding young adult ' s intoxication culture. *Australasian Marketing Journal*, *19*, 65–70. https://doi.org/10.1016/j.ausmj.2010.11.009

Fry, M. . (2014). Rethinking social marketing: Towards a sociality of consumption. *Journal of Social Marketing*, *4*(3), 210–222. https://doi.org/10.1108/JSOCM-02-2014-0011

Fujihira, H., Kubacki, K., & Ronto, R. (2015). Social Marketing Physical Activity Interventions Among Adults 60 Years and Older : A Systematic Review. *Social Marketing Quarterly*, *21*(4), 214–229. https://doi.org/10.1177/1524500415606671

García-moreno, C., Zimmerman, C., Morris-gehring, A., Heise, L., Amin, A., Abrahams, N., & Oswaldo, M. (2015). Violence against women and girls 5 Addressing violence against

women : a call to action. *Lancet*, *385*, 1685–1695. https://doi.org/10.1016/S0140-6736(14)61830-4

Gee, S., Sam, M. ., & Jackson, S. . (2016). Content analyses of alcohol- related images during television broadcasts of major sports events in New Zealand. *International Journal of Sports Marketing and Sponsorship*, *18*(3), 230–245. https://doi.org/10.1108/IJSMS-08-2017-094

Geisner, I. M., Koopmann, J., Bamberger, P., Wang, M., Larimer, M. E., Nahum-shani, I., & Bacharach, S. (2018). Addictive Behaviors When the party continues : Impulsivity and the e ff ect of employment on young adults ' post-college alcohol use ☆. *Addictive Behaviors*, *77*(August 2017), 114–120. https://doi.org/10.1016/j.addbeh.2017.09.014

Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, *25*(2), 186–192.

Ghidey, S. (2021). *The effect of promotional mix practices on brand equity, the case of Heineken Breweries* (Issue June). ST. MARY'S UNIVERSITY.

Gilbert, D. . . (1996). Relationship marketing and airline loyalty schemes. *Tourism Management*, *17*(8), 575–582.

Gmel, G., Holmes, J., & Studer, J. (2016). Are alcohol outlet densities strongly associated with alcohol-related outcomes ? A critical review of recent evidence. *Drug and Alcohol Review*, *35*(1), 40–54. https://doi.org/10.1111/dar.12304

Gold, N., Lin, Y., Ashcroft, R., & Osman, M. (2020). Better off, as judged by themselves': do

people support nudges as a method to change their own behavior? *Behavioural Public Policy*, 1–30.

Gollwitzer, P. . (1993). Goal Achievement : The Role of Intentions Goal Achievement : The Role of Intentions. *European Review of Social Psychology*, *4*(1), 141–185. https://doi.org/10.1080/14792779343000059

Gollwitzer, P. ., & PaschalS, H. (2006). Implementation intentions and goal achievement : A meta - analysis of effect and processes. *Advances in Experimental Social Psychology*, *38*(06). https://doi.org/10.1016/S0065-2601(06)38002-1

Gordon, R, Russell-bennett, R., & Lefebvre, R. . (2016). Social marketing : the state of play and brokering the way forward. *Journal of Marketing Management*, *32*(11–12), 1059–1082. https://doi.org/10.1080/0267257X.2016.1199156

Gordon, Ross. (2013). Unlocking the potential of upstream social marketing. *European Journal of Marketing*, *47*(9), 1525–1547. https://doi.org/10.1108/EJM-09-2011-0523

Gorsuch, R. (1983). *Factor analysis* (2nd ed.). Lawrence Erlbaum Associates.

Gozzi, N., Scudeler, M., Paolotti, D., Baronchelli, A., & Perra, N. (2021). Self-initiated behavioral change and disease resurgence on activity-driven networks. *Pysical Review*, *014307*, 1–10. https://doi.org/10.1103/PhysRevE.104.014307

Grant, A., Brown, B., & Moreno, M. (2013). The disparity between social drinking motives and social outcomes: A new perspective on college student drinking. *College Student Journal*, *47*(1), 96–101.

Greenfield, B. L., & Tonigan, J. S. (2013). The general alcoholics anonymous tools of recovery:

the adoption of 12-step practices and beliefs. *Psychology of Addictive Behaviors*, *27*(3), 553.

Greenfield, S. ., Sugarman, D. ., Muenz, L. ., Patterson, M. ., He, D. ., & Weiss, R. . (2003). The Relationship Between Educational Attainment and Relapse Among Alcohol-Dependent Men and Women : A Prospective Study. *Alcohol Clinical and Experimental Research*, *27*(8), 1278–1285. https://doi.org/10.1097/01.ALC.0000080669.20979.F2

Grier, S., & Bryant, C. . (2005). Social marketing in public health. *Annual Review Public Health*, *26*(9), 319–39. https://doi.org/10.1146/annurev.publhealth.26.021304.144610

Griswold, M. ., Fullman, N., Hawley, C., Arian, N., Zimsen, S. ., Tymeson, H.D Venkateswaran, V., Tapp, A. ., Forouzanfar, M. ., Salama, J. ., & Abate, K. . (2018). Articles Alcohol use and burden for 195 countries and territories , 1990 – 2016 : a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet, 392(10152), 1015-1035*, *392*(10152), 1015–1035. https://doi.org/10.1016/S0140-6736(18)31310-2

Gronroos, C. (1990). Relationship Approach to Marketing in Service Contexts : The Marketing and Organizational Behavior Interface. *Journal of Business Research*, *20*(1), 3–11.

Gubi, P. ., & Marsden-hughes, H. (2013). Exploring the processes involved in long-term recovery from chronic alcohol addiction within an abstinence-based model : Implications for practice. *Counselling and Psychotherapy Research*, *13*(3), 201–209.

Gucht, D. ., Baeyens, F., Vansteenwegen, D., Hermans, D., & Beckers, T. (2010). Counterconditioning Reduces Cue-Induced Craving and Actual Cue-Elicited Consumption. *Emotion*, *10*(5), 688–695. https://doi.org/10.1037/a0019463

Guillou-landreat, M., Dany, A., Yves, J., Reste, L., Goff, D. L., Benyamina, A., Grall-bronnec, M., & Gallopel-morvan, K. (2020). Impact of alcohol marketing on drinkers with Alcohol use disorders seeking treatment : a mixed-method study protocol. *BMC Public Health*, *20*(1), 1–8.

Gustafsson, N. K., Rydgren, J., Rostila, M., & Miething, A. (2021). Social network characteristics and alcohol use by ethnic origin: An ego-based network study on peer similarity, social relationships, and co-existing drinking habits among young Swedes. *Plos One*, *16*(4), e0249120.

Haberecht, K., Baumann, S., Bischof, G., Gaertner, B., & John, U. (2018). Do brief alcohol interventions among unemployed at-risk drinkers increase re-employment after 15 month ? *European Journal of Public Health*, *28*(3), 510–515. https://doi.org/10.1093/eurpub/ckx142

Hagger, M. S., Hankonen, N., Kangro, E. ., Lintunen, T., Pagaduan, J., Polet, J., Ries, F., & Hamilton, K. (2019). Trait Self-Control, Social Cognition Constructs, and Intentions: Correlational Evidence for Mediation and Moderation Effects in Diverse Health Behaviours. *Applied Psychology: Health and Well-Being*, *11*(3), 407–437. https://doi.org/10.1111/aphw.12153

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, *45*(5), 616–632. https://doi.org/10.1007/s11747-017-0517-x

Hamilton, H. ., Armeli, S., & Tennen, H. (2021). To drink or not to drink : When drinking intentions predict alcohol consumption and consequences. *British Journal of Health Psychology*. https://doi.org/10.1111/bjhp.12560

Hansen, E. M., Mejldal, A., & Nielsen, A. S. (2020). Predictors of Readmission Following Outpatient Treatment for Alcohol Use Disorder. *Alcohol and Alcoholism*, *00*(00), 1–9. https://doi.org/10.1093/alcalc/agaa018

Hartzler, B., & Fromme, K. I. . (2003). Heavy eposodic drinking and college entrance. *Journal of Drug Education*, *33*(3), 259–274.

Hastings, G. (2003). Competition in Social Marketing. *Social Marketing Quarterly*, *9*(3), 6–10.

Hastings, G., Anderson, S., Cooke, E., & Gordon, R. (2005). Alcohol Marketing and Young People ' s Drinking : A Review of the Research. *Journal of Public Health Policy*, *26*, 296–311. https://doi.org/10.1057/palgrave.jphp.3200039

Hatcher, A. M., Colvin, C. J., Ndlovu, N., & Dworkin, S. L. (2014). Intimate partner violence among rural South African men: alcohol use, sexual decision-making, and partner communication. *Culture, Health & Sexuality*, *16*(9), 1023–1039.

Hausenblas, H. ., Nigg, C. ., Dannecker, E. ., Downs, S., Gardner, R. ., Fallon, E. ., Focht, B. ., Loving, M. ., Hausenblas, H. ., Nigg, C. ., Dannecker, E. ., Downs, S., Gardner, R. ., Fallon, E. ., Focht, B. ., & Loving, M. . (2007). A missing piece of the transtheoretical model applied to exercise : Development and validation of the temptation to not exercise scale A MISSING PIECE OF THE TRANSTHEORETICAL MODEL APPLIED TO EXERCISE : DEVELOPMENT AND VALIDATION OF THE TEMPTATION TO NOT. *Psychology and Health*, *16*, 381–390. https://doi.org/10.1080/08870440108405514

Haverfield, M. ., Theiss, J. ., & Leustek, J. (2016). Characteristics of Communication in Families of Alcoholics. *Journal of Family Communication*, *16*(2), 111–127. https://doi.org/10.1080/15267431.2016.1146284

Hawkins, B., & Holden, C. (2013). Framing the alcohol policy debate : industry actors and the regulation of the UK beverage alcohol market. *Critical Policy Studies*, *7*(1), 53–71. https://doi.org/10.1080/19460171.2013.766023

Hawkins, B., & Holden, C. (2017). Framing the alcohol policy debate : industry actors and the regulation of the UK beverage alcohol market. *Critical Policy Studies*, *7*(1), 53–71. https://doi.org/10.1080/19460171.2013.766023

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.

Hebbani, S., Ruben, J. ., & Selvam, S. (2020). A study of resilience among young adult children of alcoholics in Southern India. *Journal of Addictive Diseases*, *0*(0), 1–9. https://doi.org/10.1080/10550887.2020.1765716

Herd, N., & Borland, R. (2009). The natural history of quitting smoking : findings from the International Tobacco Control (ITC) Four. *Addiction*, *104*(12), 2075–2087. https://doi.org/10.1111/j.1360-0443.2009.02731.x

Hibbert, L. J., & Best, D. W. (2011). Assessing recovery and functioning in former problem drinkers at different stages of their recovery journeys. *Drug and Alcohol Review*, *30*(1), 12–20.

Hicks, A., Teresa, M., Barclay, J., Stone, J., Robertson, R., & Patricia, G. (2017). International

Journal of Disaster Risk Reduction Risk communication fi lms : Process , product and potential for improving preparedness and behaviour change. *International Journal of Disaster Risk Reduction, 23*(January), 138–151. https://doi.org/10.1016/j.ijdrr.2017.04.015

Hill, J. ., & Leeming, D. (2014). Reconstructing ‘ the Alcoholic ’ : Recovering from Alcohol Addiction and the Stigma this Entails. *International Journal of Mental Health Addiction, 12*, 759–771. https://doi.org/10.1007/s11469-014-9508-z

Hobbs, L., Campbell, R., & Michie, S. (2011). Behaviour change theories across Psychology, Sociology, Anthropology and Economics: A systematic review. *In 25th Annual Conference of the European Health Psychology Society, Crete.*

Hogan, B. ., Linden, W., & Najarian, B. (2002). Social support interventions Do they work ? *Clinical Psychology Review*, *22*, 381–440.

Holloway, A., Guthrie, V., Waller, G., Smith, J., Boyd, J., Mercado, S., Smith, P., Stenhouse, R., Sheikh, A., Parker, R. ., Stoddart, A., Conaglen, P., Coulton, S., Stadler, G., Hunt, K., Bray, J., Ferguson, J., Sondhi, A., Lynch, K., … Birch, D. . (2021). A two- - arm parallel- - group individually randomised prison pilot study of a male remand alcohol intervention for self- - efficacy enhancement : the APPRAISE study protocol. *BMJ Open*. https://doi.org/10.1136/bmjopen-2020-040636

Holloway, A., & Watson, H. . (2002). Role of self-efficacy and behaviour change. *International Journal of Nursing Practice*, *8*(2), 106–115.

Horowitz, S. . (2002). Applying the Transtheoretical Model to Pregnancy and STD Prevention : A Review of the Literature. *American Journal of Health Promotion*, *17*(5), 304–329.

Horton, R. . (1974). The Edwards Personal Preference Schedule and Consumer Personality Research. *Journal of Marketing Research*, *11*(3), 335–337.

Hovell, M. F., Wahlgren, D. R., & Gehrman, C. A. (2002). The behavioral ecological model. Integrating Public Health and Behavioral Science. In *Emerging theories in health promotion parctice and research. Strategies for Improving Public Health*.

Hu, L. ., & Bentler, P. . (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Humphreys, K. (2000). Community narratives and personal stories in Alcoholics Anonymous. *Journal of Community Psychology*, *28*(5), 495–506.

Humphreys, K., Wing, S., McCarty, D., Chappel, J., Gallant, L., Haberle, B., Horvath, A. ., Kaskutas, L. ., Kirk, T., Kivlahan, D., & Laudet, A. (2004). Self-help organizations for alcohol and drug problems : Toward evidence-based practice and policy. *Journal of Substance Abuse Treatment*, *26*, 151–158. https://doi.org/10.1016/S0740-5472(03)00212-5

Hunt, X., Nespola, A., Tapper, K., & Kagee, A. (2017). Sensitivity to reward and punishment : Associations with fat and sugar intake among South African students. *South African Journal of Psychology*, *47*(2), 222–232. https://doi.org/10.1177/0081246316667329

Hurt, R. D., Ebbert, J. O., Muggli, M. E., Lockhart, N. J., & Robertson, C. R. (2009). Open doorway to truth: Legacy of the Minnesota tobacco trial. *Mayo Clinic Proceedings*, *84*(5), 446–456.

Irandoust, M. (2021). A non-linear approach to alcohol consumption decisions : monopoly

versus competition. *Journal of Public Health: From Theory to Practice*, *29*, 1443–1453.

Irving, J. (2016). Alcoholics Anonymous: sustaining behavioural change. Moving on From Crime and Substance Use. *Transforming Identities*, *195*.

Isobell, D., Kamaloodien, K., & Savahl, S. (2018). Addiction treatment providers ' perceptions of publicly-funded treatment services in the Western. *Journal of Psychology in Africa*, *28*(1), 77-80,. https://doi.org/10.1080/14330237.2017.1419919

Jackson, N., Denny, S., & Ameratunga, S. (2014). Social and socio-demographic neighborhood effects on adolescent alcohol use: A systematic review of multi-level studies. *Social Science and Medicine*, *115*, 10–20. https://doi.org/10.1016/j.socscimed.2014.06.004

Janssen, M. ., Mathijssen, J. J. ., Jh, M., Martens, V. ., & Oers, H. A. M. . (2013). Effectiveness of alcohol prevention interventions based on the principles of social marketing : a systematic review. *Substance Abuse Treatment, Prevention, and Policy*, *8*(1), 1–11.

Jason, L. A., Luna, R. D., Alvarez, J., & Stevens, E. (2018). Collectivism and individualism in Latino recovery homes. *Journal of Ethnicity in Substance Abuse*, *17*(3), 223–236.

Jeon, D. ., Kim, K. ., & Heo, M. (2014). Factors related to stages of exercise behavior change among university students based on the transtheoretical model. *Journal of Physical Therapy Science*, *26*(12), 1929–1932. https://doi.org/10.1589/jpts.26.1929

Jernigan, D. . (2010). The extent of global alcohol marketing and its impact on. *Contemporary Drug Problems*, 57–89.

Jernigan, D. ., & Babor, T. . (2015). The concentration of the global alcohol industry and its penetration in the African region. *Addiction*, *110*, 551–560.

https://doi.org/10.1111/add.12468

Jernigan, D., Noel, J., Landon, J., Thornton, N., & Lobstein, T. (2016). Alcohol marketing and youth alcohol consumption : a systematic review of longitudinal studies published since 2008. *Addiction*, *112*, 7–20. https://doi.org/10.1111/add.13591

Jernigan, D., & Ross, C. . (2017). The alcohol marketing landscape : alcohol industry size, structure , strategies , and public health responses. *Journal of Studies on Alcohol and Drugs*, *19*, 13–25.

Jiang, H., Livingston, M., Room, R., Brennan, A., Doran, C., Callinan, S., & Marzan, M. (2020). Modelling the effects of alcohol pricing policies on alcohol consumption in subpopulations in Australia. *Addiction*, *115*, 1038–1049. https://doi.org/10.1111/add.14898

Johnson, M. ., Garcia-romeu, A., Cosimano, M. ., & Griffiths, R. . (2014). Pilot study of the 5-HT 2A R agonist psilocybin in the treatment of tobacco addiction. *Journal of Psychopharmacology*, *28*(11), 983–992. https://doi.org/10.1177/0269881114548296

Johnson, S. ., Paiva, A. ., Cummins, C. ., Johnson, J. ., Dyment, S. J., Wright, J. A., Prochaska, J. O., Prochaska, J. M., & Sherman, K. (2008). Transtheoretical Model-based multiple behavior intervention for weight management : Effectiveness on a population basis. *Preventive Medicine*, *46*, 238–246. https://doi.org/10.1016/j.ypmed.2007.09.010

Jones, L., Bates, G., Mccoy, E., & Bellis, M. . (2015). Relationship between alcohol-attributable disease and socioeconomic status , and the role of alcohol consumption in this relationship : a systematic review and meta-analysis. *BMC Public Health*, *15*(500), 2–15. https://doi.org/10.1186/s12889-015-1720-7

Jones, L., & Sumnall, H. (2016). *Understanding the relationship between poverty and alcohol misuse* (Vol. 6, Issue June).

Josefsson, K., Elovainio, M., Stenholm, S., Kawachi, I., Kauppi, M., Aalto, V., Kivimäki, M., & Vahtera, J. (2018). Social Science & Medicine Relationship transitions and change in health behavior : A four-phase , twelve-year longitudinal study. *Social Science & Medicine, 209*(March 2016), 152–159. https://doi.org/10.1016/j.socscimed.2018.03.006

Jung, M. (2013). Evidence of Psychosocial and Behavioral Effects Related to the Intention to Quit Alcohol in South Korea. *The Health Care Manager*, *32*(2), 141–150. https://doi.org/10.1097/HCM.0b013e31828ef61c

Kaewpramkusol, R., Senior, K., Nanthamongkolchai, S., & Chenhall, R. (2019). A qualitative exploration of the Thai alcohol policy in regulating alcohol industry ' s marketing strategies and commercial activities. *Drug and Alcohol Review*, *38*, 25–33. https://doi.org/10.1111/dar.12885

Kahle, L. ., & Chiagouris, L. (1997). *Values, Lifestyles, and Psychographics*. Lawrence Erlbaum.

Kanfer, F. H. (1970). *Self-monitoring: Methodological limitations and clinical applications*.

Keller, K. ., & Lehmann, D. . (2006). Brands and Branding : Research Findings and Future Priorities. *Marketing Science*, *25*(6), 740–759. https://doi.org/10.1287/mksc.1050.0153

Kelly, M. ., & Barker, M. (2016). Why is changing health-related behaviour so difficult ? *Public Health*, *136*, 109–116. https://doi.org/10.1016/j.puhe.2016.03.030

Kilian, C., Rehm, J., Allebeck, P., Braddick, F., Gual, A., Barták, M., Bloomfield, K., & Gil, A. (2021). Alcohol consumption during the COVID-19 pandemic in Europe : a large-scale

cross-sectional study in 21 countries. *Addiction*, *116*(February 2021), 3369–3380. https://doi.org/10.1111/add.15530

Kim, W. ., & Cha, Y. (2002). Antecedents and consequences of relationship quality in hotel industry. *Hospitality Management*, *21*, 321–338.

Koffarnus, M. ., Kablinger, A. ., Kaplan, B. ., & Crill, E. . (2021). Remotely Administered Incentive-Based Treatment for Alcohol Use Disorder With Participant-Funded Incentives is Effective but Less Accessible to Low-Income Participants. *Experimental and Clinical Psychopharmacology*, *29*(5), 555–565.

Konu, H. (2010). Identifying potential wellbeing tourism segments in Finland. *Tourism Review*, *65*(2), 41–51. https://doi.org/10.1108/16605371011061615

Kotler, P. (1972). A generic concept of marketing. *Marketing Management*, *32*(2), 46–54. https://doi.org/10.1177/002224297203600209

Kotler, P. (1988). *Marketing Management*. Prentice-Hall.

Kotler, P. (1989). From Mass Marketing to Mass Customization. *Planning Review*.

Kotler, P., & Fox, K. F. (1995). *Strategic marketing for educational institutions*. Prentice Hall.

Kotler, P., Jain, D. C., Jain, D., & Maesincee, S. (2002). *Marketing moves: a new approach to profits, growth, and renewal*. Harvard Business Press.

Kotler, P., & Levy, S. (1971). De-marketing, Yes, De-marketing. *Harvard Business Review*, 74–80.

Kotler, P., & Levy, S. . . (1969). Broadening the concept of marketing. *Journal of Marketing*, *33*(1), 10–15. https://doi.org/10.2307/1248740

Kotler, P., & Zaltman, G. (1971). Social marketing: An approach to planned social change. *Social Marketing Quarterly*, *35*(3), 3–12. https://doi.org/10.1080/15245004.1996.9960973

Kowalski, K., Jeznach, A., & Tuokko, H. . (2014). Stages of driving behavior change within the Transtheoretical Model (TM). *Journal of Safety Research*, *50*, 17–25. https://doi.org/10.1016/j.jsr.2014.01.002

Kraak, A. (2008). A critical review of the National Skills Development Strategy in South Africa. *Journal of Vocational Education and Training*, *60*(1), 1–18. https://doi.org/10.1080/13636820701828762

Kriznik, N. M., Kinmonth, A. L., Ling, T., & Kelly, M. P. (2018). Moving beyond individual choice in policies to reduce health inequalities : the Moving beyond individual choice in policies to reduce health inequalities : the integration of dynamic with individual explanations. *Journal of Public Health*, *April*. https://doi.org/10.1093/pubmed/fdy045

Kwapong, O. A. T. F. (2021). E-learning experiences of adults during Covid-19 outbreak: The moderating effect of gender. *Journal of Adult and Continuing Education*, *0*(0), 1–23.

Kwasnicka, D., Dombrowski, S. ., White, M., & Falko, F. (2019). ‘ It ’ s not a diet , it ’ s a lifestyle ’: a longitudinal , data-prompted interview study of weight loss maintenance. *Psychology & Health*, *34*(8), 963–982. https://doi.org/10.1080/08870446.2019.1579913

Kwasnicka, D., Dombrowski, S. ., White, M., & Sniehotta, F. (2016). Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories. *Health Psychology Review*, *10*(3), 277–296. https://doi.org/10.1080/17437199.2016.1151372

Labbe, A. ., Greene, C., Bergman, B. ., Hoeppner, B., & Kelly, J. . (2013). The importance of

age composition of 12-step meetings as a moderating factor in the relation between young adults ’ 12-step participation and abstinence. *Drug and Alcohol Dependence*, *133*(2), 541–547. https://doi.org/10.1016/j.drugalcdep.2013.07.021

Lacroix, K., & Gi, R. (2020). Targeting interventions to distinct meat-eating groups reduces meat consumption. *Food Quality and Preference*, *86*(October 2019). https://doi.org/10.1016/j.foodqual.2020.103997

Lages, L. ., & Lages, C. . (2003). *The MIXADAPT Scale: A Measure of Marketing Mix Adaptation to the Foreign Market*.

Lahtinen, V., Dietrich, T., & Rundle-thiele, S. (2020). Long live the marketing mix . Testing the e ff ectiveness of the commercial marketing mix in a social marketing context. *Journal of Social Marketing*, *10*(3), 357–375. https://doi.org/10.1108/JSOCM-10-2018-0122

Lally, P., & Gardner, B. (2013). Promoting habit formation. *Health Psychology Review*, *7*(1), 137–158. https://doi.org/10.1080/17437199.2011.603640

Latvala, A., Rose, R. ., Pulkkinen, L., Dick, D. ., Korhonen, T., & Kaprio, J. (2014). Drinking , smoking , and educational achievement : Cross-lagged associations from adolescence to adulthood. *Drug and Alcohol Dependence*, *137*, 106–113. https://doi.org/10.1016/j.drugalcdep.2014.01.016

Lau, J., & Ng, K. (2014). Conceptualizing the Counseling Training Environment Using Bronfenbrenner ’ s Ecological Theory. *International Journal of Advanced Counselling*, *36*, 423–439. https://doi.org/10.1007/s10447-014-9220-5

Laudet, A. B., & Humphreys, K. (2013). Treatment Promoting recovery in an evolving policy

context : What do we know and what do we need to know about recovery support services ? *Journal of Substance Abuse Treatment*, *45*(1), 126–133. https://doi.org/10.1016/j.jsat.2013.01.009

Lavack, A. ., Magnuson, S. ., Deshpande, S., Basil, D. ., Basil, M. ., Jim, J., & Mintz, H. (2008). Enhancing occupational health and safety in young workers : the role of social marketing. *International Journal of Nonprofit and Voluntary Sector Marketing*, *13*(September 2007), 193–204. https://doi.org/10.1002/nvsm

Lawhon, M., & Herrick, C. (2013). Alcohol Control in the News : The Politics of Media Representations of Alcohol Policy in South Africa. *Journal of Health Politics Policy and Law*, *38*(5), 989–1020. https://doi.org/10.1215/03616878-2334683

Lechner, W. V, Sidhu, N. K., Jin, J. T., Kittaneh, A. A., Laurene, K. R., & Kenne, D. R. (2021). Increases in Risky drinking during the COVID-19 pandemic assessed via longitudinal Cohort Design: Associations with Racial Tensions, Financial distress, psychological distress and Virus-related Fears. *Alcohol and Alcoholism*, *56*(6), 702–707.

Lefebvre, R. . (2008). An integrative model for social marketing. *Journal of Social Marketing*, *1*(1), 54–72. https://doi.org/10.1108/20426761111104437

Legg, T., Hatchard, J., & Gilmore, A. . (2021). The Science for Profit Model — How and why corporations influence science and the use of science in policy and practice. *Plos One*, 1–24. https://doi.org/10.1371/journal.pone.0253272

Liew, H. (2016). Is There Something Unique About Marriage? The Relative Impact of Marital Status on Alcohol Consumption Among Military Personnel. *Journal of Divorce and Remarriage*, *57*(1), 76–85. https://doi.org/10.1080/10502556.2015.1088126

Liira, H., Knight, A. P., Sim, M. G., Wilcox, H. M., Cheetham, S., & Aalto, M. T. (2016). Workplace interventions for preventing job loss and other work related outcomes in workers with alcohol misuse. *Cochrane Database of Systematic Reviews*, *9*. https://doi.org/10.1002/14651858.CD012344.www.cochranelibrary.com

Lim, X. J., Radzol, A. M., Cheah, J., & Wong, M. W. (2017). The impact of social media influencers on purchase intention and the mediation effect of customer attitude. *Asian Journal of Business Research*, *17*(2), 19–36.

Liu, H. ., McCarthy, B., Chen, T., Guo, S., & Song, X. (2014). The Chinese wine market: A market segmentation study. *Asia Pacific Journal of Marketing and Logistics*, *26*(3), 450–471. https://doi.org/10.1108/APJML-07-2013-0089

Liu, H., Huang, Y., Wang, Z., Liu, K., Hu, X., & Wang, W. (2019). Personality or Value : A Comparative Study of Psychographic Segmentation Based on an Online Review Enhanced Recommender System. *Applied Sciences*, *9*(1992), 2–28.

Livingston, M., Chikritzhs, T., & Room, R. (2007). Changing the density of alcohol outlets to reduce alcohol-related problems. *Drug and Alcohol Review*, *26*(September), 557–566. https://doi.org/10.1080/09595230701499191

Locke, E. ., & Latham, G. . (2002). Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35Year Odyssey. *American Psychologist*, *57*(9), 705. https://doi.org/10.1037/0003-066X.57.9.705

Lockwood, P., Jordan, C. ., & Kunda, Z. (2002). Motivation by Positive or Negative Role Models : Regulatory Focus Determines Who Will Best Inspire Us. *Journal of Personality and Social Psychology*, *83*(4), 854–864. https://doi.org/10.1037//0022-3514.83.4.854

Loeber, S., Croissant, B., Heinz, A., Mann, K., & Flor, H. (2006). Cue exposure in the treatment of alcohol dependence : Effects on drinking outcome , craving and self-efficacy Copyright © The British Psychological Society. *British Journal of Clinical Psychology*, *45*, 515–529. https://doi.org/10.1348/014466505X82586

Longo, D. ., Ge, B., Radina, M. ., Greiner, A., Williams, C. ., Longo, G. ., Mouzon, D. ., Natale-pereira, A., Salas-, D., Longo, D. ., Ge, B., Radina, M. ., Greiner, A., Williams, C. ., Longo, G. ., Mouzon, D. ., Natale-pereira, A., Salas-lopez, D., Longo, D. ., … Salas-lopez, D. (2013). Understanding breast-cancer patients ' perceptions : Health information-seeking behaviour and passive information receipt Understanding breast-cancer patients ' perceptions : Health information-seeking behaviour and passive information receipt. *Journal of Communication in Healthcare*, *2*(2), 184–206. https://doi.org/10.1179/cih.2009.2.2.184

Lovelock, C. ., & Weinberg, C. . (1982). Review of Nonprofit Marketing Texts: Cases in Public and Nonprofit Marketing. *Journal of Marketing*, 125–129.

Lowther, M., Mutrie, N., & Scott, E. . (2007). Identifying key processes of exercise behaviour change associated with movement through the stages of exercise behaviour change. *Journal of Health Psychology*, *12*(2), 261–272. https://doi.org/10.1177/1359105307074253

Lumb, T. (2020). Student drinking: is change possible? *Journal of Public Mental Health*, *19*(1), 47–50. https://doi.org/10.1108/JPMH-12-2019-0100

Lunnay, B., Ward, P., & Borlagdan, J. (2011). The practise and practice of Bourdieu: The application of social theory to youth alcohol research. *International Journal of Drug Policy*, *22*(6), 428–436. https://doi.org/10.1016/j.drugpo.2011.07.013

Luo, X., & Bhattacharya, C. B. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, *70*(4), 1–18.

Lutz, M. . (1991). Sobering Decisions. *Alcoholism Treatment Quarterly*, *8*(2), 51–65. https://doi.org/10.1300/J020V08N02

Lynch, M., Squiers, L., Lewis, M. ., Moultrie, R., Kish-doto, J., Boudewyns, V., Bann, C., Levis, D. ., & Mitchell, E. . (2014). Understanding Women ' s Preconception Health Goals : Audience Segmentation Strategies for a Preconception Health Campaign. *Social Marketing Quarterly*, *20*(3), 148–164. https://doi.org/10.1177/1524500414534421

Macmaster, S. . (2004). Harm Reduction : A New Perspective on Substance Abuse Services. *Social Work*, *49*(3), 356–363.

Macmonegle, A. ., Nonnemaker, J., Duke, J. ., Farrelly, M. ., Zhao, X., Delahanty, J. ., Smith, A. ., Rao, P., & Allen, J. . (2018). Cost-Effectiveness Analysis of The Real Cost Campaign's Effect on Smoking Prevention. *American Journal of Preventive Medicine*, *55*(3), 319–325. https://doi.org/10.1016/j.amepre.2018.05.006

Mager, A. (2005). ' One Beer , One Goal , One Nation , One Soul ': South African Breweries , Heritage , Masculinity and Nationalism 1960-1999 Author (s): Anne Mager Source : Past & Present , Aug ., 2005 , No . 188 (Aug ., 2005), pp . 163-194 Published by : Oxford Unive. *The Past and Present Society*, *188*(188), 163–194.

Maibach, E. W., Rothschild, M. L., & Novelli, W. D. (2002). *Social marketing. Health behavior and health education: Theory, research, and practice*. Jossey-Bass San Francisco.

Mair, J., & Laing, J. . (2013). Encouraging pro-environmental behaviour : the role of

sustainability-focused events. *Journal of Sustainable Tourism*, *21*(8), 1113–1128. https://doi.org/10.1080/09669582.2012.756494

Majer, J. ., Chapman, H. ., & Jason, L. . (2016). Abstinence Self-Efficacy and Substance Use at 2 Years : The Moderating Effects of Residential Treatment Conditions Abstinence Self-Efficacy and Substance Use at 2 Years : The. *Alcoholism Treatment Quarterly*, *34*(4), 386–401. https://doi.org/10.1080/07347324.2016.1217708

Mallett, S., Rosenthal, D., & Keys, D. (2005). Young people , drug use and family conflict : Pathways into homelessness. *Journal of Adolescence*, *28*(2), 185–199. https://doi.org/10.1016/j.adolescence.2005.02.002

Martinelli, T. ., Mheen, D. V. ., Best, D., & Nagelhout, G. . (2020). Drugs : Education , Prevention and Policy Are members of mutual aid groups better equipped for addiction recovery ? European cross-sectional study into recovery capital , social networks , and commitment to sobriety. *Drugs: Education, Prevention and Policy*, *0*(0), 1–10. https://doi.org/10.1080/09687637.2020.1844638

Mary L. Joyce, M. H. M. (2017). *Marketing The Public Sector:Pricing Considerations in Social Marketing* (1st ed.). Routledge.

Masola, K., Rashied, N., Janse van Rensburg, N., & Venter, M. (2019). The impact of shebeens on the local economy: Evidence from Soweto, South Africa. *Journal of Public Administration*, *54*(4–1), 861–872.

Mathias, C. ., Mullen, J., Karns-wright, T. ., Hill-kapturczak, N., Roache, J. ., & Dougherty, D. . (2019). The Role of Social Support in Motivating Reductions in Alcohol Use : A Test of Three Models of Social Support in. *Alcohol Clinical and Experimental Research*, *43*(1),

123–134. https://doi.org/10.1111/acer.13911

Matjila, K., Ameyibor, L. E. ., & Saini, K. . (2021). The influence of consumer Socialization agents and personal attitude in the consumption of alcohol among youth in South Africa. *Young Consumers*, *22*(4), 539–554. https://doi.org/10.1108/YC-10-2020-1216

Matzopoulos, R. G., Truen, S., Bowman, B., & Corrigall, J. (2014). The cost of harmful alcohol use in South Africa. *South African Medical Journal*, *104*(2), 127–132. https://doi.org/10.7196/SAMJ.7644

Matzopoulos, R, Walls, H., Cook, S., & London, L. (2020). South Africa's COVID-19 alcohol sales ban: the potential for better policy-making. *International Journal of Health Policy and Management*, *9*(11), 486.

Matzopoulos, Richard, Walls, H., Cook, S., & London, L. (2020). Letter to Editor South Africa ' s COVID-19 Alcohol Sales Ban : The Potential for Better Policy-Making. *International Journal of Health Policy Management*, *9*(11), 486–487. https://doi.org/10.1093/heapol/czy049

Mazer, P. (1947). Does distribution cost enough? *Fortune*, *138*.

McBride, C. ., Curry, S. ., Stephens, R. ., Wells, E. ., Roffman, R. . ., & Hawkins, J. . (1994). Intrinsic and extrinsic motivation for change in cigarette smokers, marijuana smokers, and cocaine users. *Psychology of Addictive Behaviors*, *8*(4), 243–250.

McCambridge, J., & Mialon, M. (2018). Alcohol industry involvement in science : A systematic review of the perspectives of the alcohol research community. *Drug and Alcohol Review*, *37*(May), 565–579. https://doi.org/10.1111/dar.12826

McConnaughy, E. A., Prochaska, J. O., & Velicer, W. F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research, and Practice*, *20*, 368–375.

Mccrady, B. ., Flanagan, J. ., & Carolina, S. (2021). The Role of The f amily in alcohol Use Disorder Recovery for aldults. *Alcohol Rsearch Current Reviews*, *41*(1).

Mceachern, M. G., Middleton, D., & Cassidy, T. (2020). Encouraging Sustainable Behaviour Change via a Social Practice Approach : A Focus on Apparel Consumption Practices. *Journal of Consumer Policy*, *43*, 397–418.

McKay, M. ., Sumnall, H. ., Cole, J. ., & Percy, A. (2012). Self-esteem and self-efficacy: Associations with alcohol consumption in a sample of adolescents in Northern Ireland. *Drugs: Education, Prevention and Policy*, *19*(1), 72–80. https://doi.org/10.3109/09687637.2011.579585

Mericle, A. A. (2014). The role of social networks in recovery from alcohol and drug abuse. *The American Journal of Drug and Alcohol Abuse*, *2990*(3), 179–180. https://doi.org/10.3109/00952990.2013.875553

Meulman, J. ., Kooij, V., & Heiser, W. (2004). Principal Component Analysis with Nonlinear Optimal Scaling Transformations for Ordinal and Nominal Data. In D. Kaplan (Ed.), *Handbook of Quantitative Methods in the Social Sciences*. Sage.

Michie, S., Campbell, R., Brown, J., & West, R. (2014). *ABC of behaviour change theories*. Silverback Publishing.

Michie, S., Whittington, C., Hamoudi, Z., Zarnani, F., Tober, G., & West, R. (2012).

Identification of behaviour change techniques to. *Addiction*, *107*, 1431–1440. https://doi.org/10.1111/j.1360-0443.2012.03845.x

Migneault, J. ., Adams, T. ., & Read, J. . (2005). Application of the Transtheoretical Model to substance abuse : historical development and future directions. *Drug and Alcohol Review*, *June 2004*, 437–448. https://doi.org/10.1080/09595230500290866

Miller, D., & Harkins, C. (2010). Corporate strategy, corporate capture: food and alcohol industry lobbying and public health. *Critical Social Policy*, *30*(4), 564–589.

Milsom, P., Smith, R., Modisenyane, S. ., & Walls, H. (2022). Does international trade and investment liberalization facilitate corporate power in nutrition and alcohol policymaking ? Applying an integrated political economy and power analysis approach to a case study of South Africa. *Globalization and Health*, *18*(22), 1–14. https://doi.org/10.1186/s12992-022-00814-8

Morojele, N. ., Lombard, C., Burnhams, N. ., Williams, P. ., Nel, E., & Parry, C. D. . (2018). Alcohol marketing and adolescent alcohol consumption : Results from the International Alcohol Control study (South Africa). *South African Medical Journal*, *108*(9), 782–788. https://doi.org/10.7196/SAMJ.2018.v108i9.12958

Morojele, N. ., & Ramsoomar, L. (2016). Addressing adolescent alcohol use in South Africa. *South African Medical Journal*, *106*(6), 551–553. https://doi.org/10.7196/SAMJ.2016.v106i6.10944

Morojele, N. E. O. ., Dumbili, E. ., Obot, I. ., & Parry, C. D. H. (2021). Alcohol consumption , harms and policy developments in sub-Saharan Africa : The case for stronger national and regional responses. *Drug and Alcohol Review*, *40*(March), 402–419.

https://doi.org/10.1111/dar.13247

Moussaoui, L. ., Claxton, N., & Desrichard, O. (2021). Fear appeals to promote better health behaviors: an investigation of potential mediators. *Health Psychology and Behavioral Medicine*, *9*(1), 600–618. https://doi.org/10.1080/21642850.2021.1947290

Mugavin, J., Maclean, S., Room, R., & Callinan, S. (2020). Adult low-risk drinkers and abstainers are not the same. *BMC Public Health*, *20*(1), 1–7.

Müller, A., Znoj, H., & Moggi, F. (2019). How Are Self-Efficacy and Motivation Related to Drinking Five Years after Residential Treatment? A Longitudinal Multicenter Study. *European Addiction Research*, *25*(5), 213–223. https://doi.org/10.1159/000500520

Murakami, K. (2019). Associations of education and income with heavy drinking and problem drinking among men : evidence from a population- based study in Japan. *BMC Public Health*, *5*, 1–9.

Murray, J. ., Brennan, S. ., French, D. ., Patterson, C. ., Kee, F., & Hunter, R. . (2017a). Effectiveness of physical activity interventions in achieving behaviour change maintenance in young and middle aged adults: A systematic review and metaanalysis. *Social Science & Medicine*, *192*, 125–133. https://doi.org/10.1016/j.socscimed.2017.09.021

Murray, J. ., Brennan, S. ., French, D. ., Patterson, C. ., Kee, F., & Hunter, R. . (2017b). Social Science & Medicine Effectiveness of physical activity interventions in achieving behaviour change maintenance in young and middle aged adults : A systematic. *Social Science & Medicine*, *192*, 125–133. https://doi.org/10.1016/j.socscimed.2017.09.021

Murray, J., Fenton, G., Honey, S., Bara, A. ., Hill, K. ., & House, A. (2013). A qualitative

synthesis of factors influencing maintenance of lifestyle behaviour change in individuals with high cardiovascular risk. *BMC Cardiovascular Disorders*, *13*(48), 2–11.

Mutter, E. ., Oettingen, G., Gollwitzer, P. ., Mutter, E. ., Oettingen, G., & Gollwitzer, P. . (2020). An online randomised controlled trial of mental contrasting with implementation intentions as a smoking behaviour change intervention. *Psychology & Health*, *35*(3), 318–345. https://doi.org/10.1080/08870446.2019.1634200

Ndinda, C., Hongoro, C., Chilwane, D., & Mokomane, Z. (2015). Civil society activism for the prevention and treatment of non-communicable diseases in South Africa: implications for policy and practice. In *In Millennium Development Goals (MDGs) in Retrospect*. Springer Charm.

Neal, D. ., & Carey, K. . (2005). A follow-up psychometric analysis of the self-regulation questionnaire. *Psychology of Addictive Behaviors*, *19*(4), 414–422. https://doi.org/10.1037/0893-164X.19.4.414

Nelson, J. . (2010). Alcohol advertising bans , consumption and control policies in seventeen OECD countries , 1975 – 2000 Alcohol advertising bans , consumption and control policies in seventeen OECD countries , 1975 – 2000. *Applied Economics*, *42*, 803–823. https://doi.org/10.1080/00036840701720952

Nelson, J. O. N. . (2014). Gender differences in alcohol demand : A systematic review of the role of prices and taxes. *Health Economics*, *23*(July 2013), 1260–1280. https://doi.org/10.1002/hec

Ngqangashe, Y., Heenan, M., & Pescud, M. (2021). Regulating Alcohol : Strategies Used by Actors to Influence COVID-19 Related Alcohol Bans in South Africa. *International*

Journal of Environmental and Public Health, *18*(11494), 2–16.

Nigg, C. ., Geller, K. ., Motl, R. ., Horwath, C. ., Wertin, K. ., & Dishman, R. . (2011). A research agenda to examine the efficacy and relevance of the Transtheoretical Model for physical activity behavior. *Psychology of Sport & Exercise*, *12*(1), 7–12. https://doi.org/10.1016/j.psychsport.2010.04.004

Nikmanesh, Z., Baluchi, M. H., & Motlagh, A. A. P. (2017). The role of self-efficacy beliefs and social support on prediction of addiction relapse. *Nternational Journal of High Risk Behaviors and Addiction*, *6*(1).

Niland, P., Mccreanor, T., Lyons, A. ., Griffin, C., Niland, P., Mccreanor, T., Lyons, A. ., & Griffin, C. (2017). Alcohol marketing on social media : young adults engage with alcohol marketing on facebook. *Addiction Research & Theory*, *25*(4), 273–284. https://doi.org/10.1080/16066359.2016.1245293

Niskanen, V., Rask, M., & Raisio, H. (2021). Wicked Problems in Africa : A Systematic Literature Review. *SAGE Open*, *11*(3). https://doi.org/10.1177/21582440211032163

Noel, J. ., & Babor, T. . (2016). Does industry self-regulation protect young people from exposure to alcohol marketing ? A review of compliance and complaint studies. *Addiction*, *112*, 51–56. https://doi.org/10.1111/add.13432

Norcross, J. ., Krebs, P. ., & Prochaska, J. . (2011). Stages of Change. *Journal of Clinical Psychology*, *67*(2), 143–154. https://doi.org/10.1002/jclp.20758

Norman, R., Bradshaw, D., Schneider, M., Jewkes, R., Mathews, S., & Abrahams, N. (2007). Estimating the burden of disease attributable to interpersonal violence in South Africa in

2000. *South African Medical Journal*, *97*(8), 653–656.

Norris, C. ., Swayne, L. ., Taylor, S., & Taylor, D. . (2021). Isn't it iconic? Brand iconicity and distilled spirits: An exploratory study. *Journal of Foodservice Business Research*, *24*(1), 19–41. https://doi.org/10.1080/15378020.2020.1814086

Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical Diagnosis of Mental Disorders*, 97–146.

Nzama, M. V, & Ajani, O. A. (2021). Substance Abuse among High School Learners in South Africa: A Case Study of Promoting Factors. *African Journal of Development Studies*, 219–242.

Olander, E. ., Fletcher, H., Williams, S., Atkinson, L., Turner, A., & French, D. . (2013). What are the most effective techniques in changing obese individuals ' physical activity self-efficacy and behaviour : a systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity*, *10*(29), 1–15.

Olivier, L., Viljoen, D. L., & Curfs, L. M. G. (2016). Fetal alcohol spectrum disorders : Prevalence rates in South Africa. *South African Medical Journal*, *106*(6), 103–106. https://doi.org/10.7196/SAMJ.2016.v106i6.11009

One World - Nations Online. (2022). *South Africa in brief*. https://www.nationsonline.org/oneworld/south_africa.htm

Onwuegbuzie, A. ., & Frels, R. . (2013). Foreword: Using Bronfenbrenner's ecological systems theory to frame quantitative, qualitative, and mixed research. *International Journal of Multiple Research Approaches*, *7*(1), 1–8. https://doi.org/10.5172/mra.2013.7.1.2

Oplatka, I., & Hemsley-brown, J. (2004). marketing. *Journal of Educational Administration*, *42*(3), 375–400. https://doi.org/10.1108/09578230410534685

Orford, J., Natera, G., Copello, A., Atkinson, C., Mora, J., Velleman, R., & Walley, G. (2013). *Coping with alcohol and drug problems: The experiences of family members in three contrasting cultures*. Routledge.

Orford, J., Velleman, R., Natera, G., Templeton, L., & Copello, A. (2013). Social Science & Medicine Addiction in the family is a major but neglected contributor to the global burden of adult ill-health. *Social Science & Medicine*, *78*, 70–77. https://doi.org/10.1016/j.socscimed.2012.11.036

Organisation, W. H. (2018). *Global status report on alcohol and health*.

Orji, R., Tondello, G. ., & Nacke, L. . (2018). Personalizing Persuasive Strategies in Gameful Systems to Gamification User Types. *In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, 1–14.

Ory, M. G., Lee Smith, M., Mier, N., & Wernicke, M. M. (2010). The science of sustaining health behavior change: the health maintenance consortium. *American Journal of Health Behavior*, *34*(6), 6476–6659.

Padon, A. (2014). *An examination of the role of advertising content in the relationship between alcohol advertising exposure and underage drinking*. John Hpkins.

Paek, H., Hilyard, K., Freimuth, V., & Barge, J. . . (2010). Theory-Based Approaches to Understanding Public Emergency Preparedness : Implications for Effective Health and Risk Communication Theory-Based Approaches to Understanding Public Emergency

Preparedness : Implications for Effective Health and Risk Communica. *Journal of Health Communication*, *15*(4), 428–444. https://doi.org/10.1080/10810731003753083

Pagano, M. ., Ba, B. B. ., Ba, J. ., & Post, S. . (2009). Helping Others and Long-term Sobriety : Who Should I Help to Stay Sober ? Helping Others and Long-term Sobriety : Who Should I Help to Stay Sober ? *Alcoholism Treatment Quarterly*, *27*(October 2014), 37–41. https://doi.org/10.1080/07347320802586726

Pantalone, M. (2013). Alcohol-related problems and self-help groups : the situational construction of self- image. *Italian Sociological Review*, *3*(2), 71.

Parsons, A. ., & Stephenson, N. (2013). Effects of price and alcohol content on purchase behaviour : an analysis of Australian and New Zealand youth drinking. *Young Consumers*, *14*(2), 112–121. https://doi.org/10.1108/17473611311325528

Paswan, A. K., Gai, L., & Jeon, S. (2015). Alcohol and college students: Reasons, realization and intention to quit. *Journal of Business Research*, *68*(10), 2075–2083.

Patte, K. ., & Qian, W. (2017). Marijuana and Alcohol Use as Predictors of Academic Achievement : A Longitudinal Analysis Among Youth in the COMPASS. *Journal of School of Health*, *87*(5).

Patterson, M. S., Russell, A. M., Nelon, J. L., Barry, A. E., & Lanning, B. A. (2021). Using Social Network Analysis to Understand Sobriety among a Campus Recovery Community Using Social Network Analysis to Understand Sobriety among a Campus Recovery Community. *Journal of Student Affairs Research and Practice*, *58*(4), 401–416. https://doi.org/10.1080/19496591.2020.1713142

Patterson, P. ., & Ward, T. (2000). *Relationship marketing and management, Handbook of services marketing and management*.

Pedersen, E. ., Ewing, B. ., Amico, E. J. ., Miles, J. N. ., Haas, A. ., & Tucker, J. . (2018). Predictors of Retention in an Alcohol and Risky Sex Prevention Program for Homeless Young Adults. *Prevention Science*, *1*, 459–467.

Pedersen, W. (2017). Neighborhood or School ? In fl uences on Alcohol Consumption and Heavy Episodic Drinking Among Urban Adolescents. *Journal of Youth and Adolescence*, *47*, 2073–2087. https://doi.org/10.1007/s10964-017-0787-0

Peter, J. ., & Olson, J. C. (1994). *Understanding Consumer Behavior*. Irwin.

Petrocelli, J. . (2002). Processes and Stages of Change: Counseling With the Transtheoretical Model of Change. *Journal of Counselling and Development*, *80*, 22–30.

Petticrew, M., Shemilt, I., Lorenc, T., Marteau, T. M., Melendez-Torres, G. J., O'Mara-Eves, A., Stautz, K., & Thomas, J. (2017). Alcohol advertising and public health: Systems perspectives versus narrow perspectives. *Journal of Epidemiology and Community Health*, *71*(3), 308–312. https://doi.org/10.1136/jech-2016-207644

Pettigrew, S., Jongenelis, M., Chikritzhs, T., Slevin, T., Pratt, I. ., Glance, D., & Liang, W. (2014). Developing cancer warning statements for alcoholic beverages. *BMC Public Health*, *14*(1). https://doi.org/10.1186/1471-2458-14-786

Pettigrew, S., Pescud, M., Jarvis, W., & Webb, D. (2011). Teens ' blog accounts of the role of adults in youth alcohol consumption. *Journal of Social Marketing*, *3*(1), 28–40. https://doi.org/10.1108/20426761311297216

Piquero, A. ., Gibson, C. ., & Tibbetts, S. . (2002). Does self-control account for the relationship between binge drinking and alcohol-related behaviours? *Criminal Behaviour and Mental Health*, *12*(2), 135–154. https://doi.org/10.1002/cbm.492

Pirzadeh, A., Mostafavi, F., Ghofranipour, F., & Feizi, A. (2015). Applying Transtheoretical Model to Promote Physical Activities Among Women. *Psychiatry Behaviour Science*, *9*(4). https://doi.org/10.17795/ijpbs-1580

Pokrivčák, J., Chovanová, S., & Drahoslav, S. (2019). Development of beer industry and craft beer expansion. *Journal of Food and Nutrition Research*, *58*(1), 63–74.

Pollack, C. ., Cubbin, C., Ahn, D., & Winkleby, M. (2005). Neighbourhood deprivation and alcohol consumption : does the availability of alcohol play a role ? *International Journal of Epidemiology*, *February*, 772–780. https://doi.org/10.1093/ije/dyi026

Pope, J. . ., Pelletier, L., & Guertin, C. (2018). Starting Off on the Best Foot : A Review of Message Framing and Message Tailoring , and Recommendations for the Comprehensive Messaging Strategy for Sustained Behavior Change Starting Off on the Best Foot : A Review of Message Framing and Message Tailorin. *Health Communication*, *33*(9), 1068–1077. https://doi.org/10.1080/10410236.2017.1331305

Pouille, A., De Kock, C., & Vander Laenen, F Vanderplasschen, W. (2020). Recovery capital among migrants and ethnic minorities: A qualitative systematic review of first-person perspectives. *Journal of Ethnicity in Substance Abuse*, *1*(31).

Prata, N., Weidert, K., Fraser, A., & Gessessew, A. (2013). Meeting Rural Demand : A Case for Combining Community-Based Distribution and Social Marketing of Injectable Contraceptives in Tigray , Ethiopia. *Plos One*, *8*(7), 1–8.

https://doi.org/10.1371/journal.pone.0068794

Prestwich, A., Kellar, I., Conner, M., Lawton, R., Gardner, P., & Turgut, L. (2016). Does Changing Social Influence Engender Changes in Alcohol Intake ? A Meta-Analysis. *Journal of Consulting and Clinical Psychology*, *84*(10), 845–860.

Probst, C., Manthey, J., & Rehm, J. (2017). Understanding the prevalence of lifetime abstinence from alcohol: An ecological study. *Drug Alcohol Dependence*, *178*, 126–129. https://doi.org/10.1016/j.drugalcdep.2017.05.008

Probst, C., Shuper, P. ., & Rehm, J. (2017). Coverage of alcohol consumption by national surveys in South Africa. *Addiction*, *112*, 705–710. https://doi.org/10.1111/add.13692

Prochaska, J. . (2008). Decision Making in the Transtheoretical Model of Behavior Change. *Medical Decision Making*, *28*, 845–849. https://doi.org/10.1177/0272989X08327068

Prochaska, J. ., & Velicer, W. . (1997a). The Transtheoretical Change Model of Health Behavior. *American Journal of Health Promotion*, *12*(1), 38–48.

Prochaska, J. ., & Velicer, W. . (1997b). The transtheoretical model of health behavior change. *American Journal of Health Promotion*, *12*(1), 38–48. https://doi.org/10.1300/j137v10n02_02

Prochaska, J. O. (2020). *Transtheoretical model of behavior change. In Encyclopedia of behavioral medicine*. Cham: Springer International Publishing.

Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of behavior change. *Psychotherapy: Theory, Research, and Practice*, *20*, 161–173.

Prochaska, J. O., Norcross, J. C., & DiClemente, C. C. (2013). Applying the stages of change. *Psychotherapy in Australia, 19*(2), 10–15.

Prochaska, J. O., Redding, C., & Evers, K. (1997). *The transtheoretical model. Health behavior and health education: theory, research, and practice*. Jossey-Bass.

Protogerou, C., Mchugh, R. ., & Johnson, B. . (2020). How best to reduce unhealthy risk-taking behaviours ? A meta-review of evidence syntheses of interventions using self-regulation principles. *Health Psychology Review*, *14*(1), 86–115. https://doi.org/10.1080/17437199.2019.1707104

Reality Research Africa. (2004). *Study of the Liquor Industry in South Africa Prepared by :* (Issue March).

Rehm, J., Irving, H., Ye, Y., Kerr, W. C., Bond, J., & Greenfield, T. K. (2008). Practice of Epidemiology Are Lifetime Abstainers the Best Control Group in Alcohol Epidemiology ? On the Stability and Validity of Reported Lifetime Abstention. *American Journal of Epidemiology*, *168*(8), 866–871. https://doi.org/10.1093/aje/kwn093

Reilly, T. (2016). Are Social Enterprises Viable Models for Funding Nonprofits ? *Human Service Organizations: Management, Leadership & Governance*, *40*(4), 297–301. https://doi.org/10.1080/23303131.2016.1165047

Richmond, C. A., & Ross, N. A. (2008). Social support, material circumstance and health behaviour: Influences on health in First Nation and Inuit communities of Canada. *Social Science & Medicine*, *67*, 1423–1433. https://doi.org/10.1016/j.socscimed.2008.06.028

Ringel, J. S., Collins, R. ., & Ellickson, P. . (2006). Time Trends and Demographic Differences

in Youth Exposure to Alcohol Advertising on Television. *Journal of Adolescent Health*, *39*(4), 473–480. https://doi.org/10.1016/j.jadohealth.2006.02.006

Ritchie, J. R., Goeldner, C. R., & McIntosh, R. W. (2003). *Tourism: principles, practices, philosophies*. John Wiley & Son.

Robson, K., Plangger, K., Kietzmann, J. ., & Mccarthy, I. (2015). Is it all a game ? Understanding the principles of gamification. *Business Horizons*, *58*(4), 411–420. https://doi.org/10.1016/j.bushor.2015.03.006

Rodriguez, L. ., Neighbors, C., & Knee, C. . (2014). Problematic alcohol use and marital distress: An interdependence theory perspective. *Addiction Research and Theory*, *22*(4), 294–312. https://doi.org/10.3109/16066359.2013.841890

Roerecke, M., & Rehm, J. (2013). Alcohol use disorders and mortality : a systematic review and meta-analysis. *Addiction*, *108*, 1562–1578. https://doi.org/10.1111/add.12231

Roesch-dietlen, F., González-santes, M., Sánchez-maza, Y. J., & Díaz-roesch, F. (2021). Influence of socioeconomic and cultural factors in the etiology of cirrhosis of the liver ☪. *Revista de Gastroenterología de México*, *86*, 28–35. https://doi.org/10.1016/j.rgmxen.2020.01.004

Rogerson, C. ., & Collins, K. J. . (2019). Entrepreneurs in craft beer and tourism: Perspectives from South Africa. *GeoJournal of Tourism and Geosites*, *27*(4), 1158–1172.

Rogerson, C. M., & Collins, K. J. (2015). Developing beer tourism in South Africa : international perspectives. *African Journal of Hospitality, Tourism and Leisure*, *4*(1).

Rokeach, M. (1973). *The nature of human values*. Free Press.

Roland, E. J., & Kaskutas, L. A. (2002). Alcoholics Anonymous and church involvement as predictors of sobriety among three ethnic treatment populations. *Alcoholism Treatment Quarterly*, *20*(1), 61–77.

Rooney, C., & Bhorat, H. (2017). *State of manufacturing in South Africa* (201702. DPRU; Issue March).

Roper, L., Mcguire, J., Salmon, P., & Booth, P. . (2018). Treatment-seeking for alcohol problems : The influence of mirroring events and windows of opportunity Treatment-seeking for alcohol problems : The influence of mirroring events and windows of opportunity. *Addiction Research and Theory*, *October 2013*, 1–10. https://doi.org/10.3109/16066359.2012.746318

Rosenbloom, M. ., Pfefferbaum, A., & Sullivan, E. . (2004). Recovery of short-term memory and psychomotor speed but not postural stability with long-term sobriety in alcoholic women. *Neuropsychology*, *18*(3), 589–597. https://doi.org/10.1037/0894-4105.18.3.589

Ross, C. ., Maple, E., Siegel, M., Dejong, W., Naimi, T. ., Ostroff, J., Padon, A. ., Borzekowski, D. L. ., & Jernigan, D. . (2014). The Relationship Between Brand-Specific Alcohol Advertising on Television and Brand-Specific Consumption Among Underage Youth. *Alcohol Clinical Experimental Research*, *38*(8), 2234–2242. https://doi.org/10.1111/acer.12488

Rossow, I., & Træen, B. (2020). Alcohol use among older adults : A comparative study across four European countries. *Nordic Studies on Alcohol and Drugs*, *37*(6), 526–543. https://doi.org/10.1177/1455072520954335

Rothman, A. (2000). Toward a theory-based analysis of behavioral maintenance. *Health*

Psychology, *19*, 1–16.

Rothman, A. ., Sheeran, P., & Wood, W. (2009). Reflective and Automatic Processes in the Initiation and Maintenance of Dietary Change. *Annals of Behavioral Medicine*, *38*, 4–17. https://doi.org/10.1007/s12160-009-9118-3

Rothman, A. J., Baldwin, A. S., Hertel, A. W., & Fuglestad, P. T. (2011). *Self-regulation and behavior change: Disentangling behavioral initiation and behavioral maintenance. In K. D. Vohs & R. F. Baumeister, Handbook of self-regulation: Research, theory, and applications (Eds.)*. Guilford Press.

Rothman, A. J., Hertel, A. W., Baldwin, A. S., & Bartels, R. (2008). *Integrating theory and practice: Understanding the determinants of health behavior change. In Handbook of motivation science*. Guilford Press.

Rundle-Thiele, S., David, P., Willmott, T., Pang, B., Eagle, L., & Hay, R. (2019). Social marketing theory development goals : an agenda to drive change. *Journal of Marketing Management*, *35*(1–2), 160–181. https://doi.org/10.1080/0267257X.2018.1559871

Rundle-Thiele, S., Russell-Bennett, R., Leo, C., & Dietrich, T. (2013). Moderating teen drinking: Combining social marketing and education. *Health Education*, *113*(5), 392–406. https://doi.org/10.1108/HE-07-2012-0041

Rundle-Thiele, S., Russell-Bennett, R., Leo, C., & Dietrich, T. (2013). Moderating teen drinking : combining social marketing and education. *Health Education*, *113*(5), 392–406. https://doi.org/10.1108/HE-07-2012-0041

Rütten, A., & Gelius, P. (2014). Building policy capacities: An interactive approach for linking

knowledge to action in health promotion. *Health Promotion International*, *29*(3), 569–582. https://doi.org/10.1093/heapro/dat006

Ryan, R. ., & Deci, E. . (2000). Intrinsic and Extrinsic Motivations : Classic Definitions and New Directions. *Contemporary Educational Psychology*, *67*, 54–67. https://doi.org/10.1006/ceps.1999.1020

Sacks, G., Kwon, J., & Backholer, K. (2021). Do taxes on unhealthy foods and beverages influence food purchases ? *Current Nutrition Reports*, *10*(3), 179–187.

Saffer, H., & Dave, D. (2002). Alcohol consumption and alcohol advertising bans. *Applied Economics*, *34*(11), 1325–1334. https://doi.org/10.1080/00036840110102743

Säfsten, E., Forsell, Y., Ramstedt, M., & Galanti, M. . (2018). Health behaviours as a predictor of quitting hazardous alcohol use in the Stockholm Public Health Cohort. *European Journal of Public Health*, *28*(3), 527–532. https://doi.org/10.1093/eurpub/ckx193

Sahadev, S. (2020). Segmenting Excessive Alcohol Consumers : Implications for Social Marketing. *IIM Kozhikode Society & Management Review*, *9*(2), 213–225. https://doi.org/10.1177/2277975220913366

Saloner, B., & Cook, B. L. (2013). Blacks And Hispanics Are Less Likely Than Whites To Complete Addiction Treatment, Largely Due To Socioeconomic Factors. *Addiction Treatment*, *January*, 135–145. https://doi.org/10.1377/hlthaff.2011.0983

Salvy, S., Pedersen, E. ., Miles, J. N. ., Tucker, J. ., & Amico, E. J. . (2014). Proximal and distal social influence on alcohol consumption and marijuana use among middle school adolescents. *Drug and Alcohol Dependence*, *144*, 93–101.

https://doi.org/10.1016/j.drugalcdep.2014.08.012

Samdal, G. ., Eide, G. ., Barth, T., Williams, G., & Meland, E. (2017). Effective behaviour change techniques for physical activity and healthy eating in overweight and obese adults ; systematic review and meta-regression analyses. *International Journal of Behavioral Nutrition and Physical Activity*, *14*(42), 1–14. https://doi.org/10.1186/s12966-017-0494-y

Sánchez, J., Sahker, E., & Arndt, S. (2019). The Assessment of Recovery Capital (ARC) Predicts Substance Abuse Treatment Completion. *Addictive Behaviors*, *102*, 106189. https://doi.org/10.1016/j.addbeh.2019.106189

Sarantakos, S. (2005). *Social Research* (3rd ed.). Palgrave Macmillan.

Savell, E., Fooks, G., & Gilmore, A. . (2015). How does the alcohol industry attempt to in fl uence marketing regulations ? A systematic review. *Addiction*, *111*, 18–32. https://doi.org/10.1111/add.13048

Schmutzler, J., Andonova, V., & Diaz-serrano, L. (2019). How Context Shapes Entrepreneurial Self-Efficacy as a Driver of Entrepreneurial Intentions : A Multilevel Approach. *Entrepreneurship Theory and Practice*, *43*(5), 880–920. https://doi.org/10.1177/1042258717753142

Schneider, M., Norman, R., Parry, C., Bradshaw, D., Pluddemann, A., & Collaboration, S. A. C. R. A. (2007). Estimating the burden of disease attributable to alcohol use in South Africa in 2000. *South African Medical Journal*, *97*(8), 664–672.

Schüz, B., Bower, J., & Ferguson, S. . (2015). Stimulus control and affect in dietary behaviours . An intensive longitudinal study ☆. *Appetite*, *87*, 310–317.

https://doi.org/10.1016/j.appet.2015.01.002

Schwartz, S. (1992). *Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries* (in M.P. Za). Academic Press.

Schwartz, S., & Bilsky, W. (1990). Towards a universal psychological structure of human values. *Journal of Personality and Social Psychology*, *53*, 550–62.

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In *In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal And control beliefs* (pp. 35–37). NFER-NELSON.

Scott-parker, B., & Weston, L. (2017). Sensitivity to reward and risky driving , risky decision making , and risky health behaviour : A literature review. *Transportation Research Part F: Psychology and Behaviour*, *49*, 93–109. https://doi.org/10.1016/j.trf.2017.05.008

Seeley, J. ., Farmer, R. ., Kosty, D. ., & Gau, M. (2019). Prevalence , incidence , recovery , and recurrence of alcohol use disorders from childhood to age 30. *Drug and Alcohol Dependence*, *194*(September 2018), 45–50. https://doi.org/10.1016/j.drugalcdep.2018.09.012

Serrat, O. (2017). *Marketing in the public sector. In Knowledge Solutions*. Springer.

Setlalentoa, M., Ryke, E., Strydom, H. (2015). Intervention strategies used to address alcohol abuse in the North West province, South Africa. *Social Work*, *5*(1), 80–100.

Setlalentoa, B. M. P., Pisa, P. T., Thekisho, G. N., Ryke, E. H., & Loots Du, T. (2010). The social aspects of alcohol misuse / abuse in South Africa. *South African Journal of Clinical Nutrition*, *23*(3), 11–15.

Seymour, R. ., Hughes, S. ., Ory, M. ., Elliot, D. ., Kirby, K. ., Migneault, J., Patrick, H., Roll, J. ., & Williams, G. (2010). A Lexicon for Measuring Maintenance of Behavior Change. *American Journal of Health Behavior*, *34*(6), 660-668(9).

Shapiro, S. . (1973). Marketing and Consumerism : Views on the Present and the Future. *The Journal of Consumer Affairs*, *7*(2), 173–178.

Sharma, A., Sinha, K., & Vandenberg, B. (2017). Pricing as a means of controlling alcohol consumption. *British Medical Bulletin*, *123*, 149–158. https://doi.org/10.1093/bmb/ldx020

Sheeran, P., Maki, A., Montanaro, E., Bryan, A., Klein, W. M. ., Miles, E., & Rothman, A. . (2016). The Impact of Changing Attitudes , Norms , and Self-Efficacy on Health-Related Intentions and Behavior : A Meta-Analysis. *Health Psychology*, *35*(11), 1178–1188.

Short, C. ., James, E. ., Stacey, F., & Plotnikoff, R. . (2013). A qualitative synthesis of trials promoting physical activity behaviour change among post-treatment breast cancer survivors. *Journal of Cancer Survivor*, *7*, 570–581. https://doi.org/10.1007/s11764-013-0296-4

Siegel, M., & Doner, L. (1998). *Applying marketing principles to public health. Marketing public health: strategies to promote social change*. Aspen Publishers, Inc.

Simons-Morton, B., Haynie, D., Liu, D., Chaurasia, A., Li, K., & Hingson, R. (2016). Social Infl uence on the Prevalence of Alcohol Use Among. *Journal of Studies on Alcohol and Drugs*, *77*(1), 121–132.

Skewes, M. ., & Lewis, J. . (2016a). Native elders. *International Journal of Circumpolar Health*, *3982*(1). https://doi.org/10.3402/ijch.v75.30476

Skewes, M. C., & Lewis, J. P. (2016b). Sobriety and alcohol use among rural Alaska Native elders. *International Journal of Circumpolar Health*, *75*(1), 30476.

Skinner, R., Gonet, V., Currie, S., Hoddinott, P., & Dombrowski, S. . (2020). A systematic review with meta-analyses of text message- delivered behaviour change interventions for weight loss and weight loss maintenance. *Obesity Reviews*, *21*(December 2019), 1–13. https://doi.org/10.1111/obr.12999

Slater, M. ., & Flora, J. . (1991). Lifestyles : Audience Segmentation Analysis for Public Health Interventions. *Health Education and Behaviour*, *18*(2), 221–233.

Smith, K., Dorfman, L., Freudenberg, N., Hawkins, B., Hilton, S., Razum, O., & Weishaar, H. (2016). Tobacco, alcohol, and processed food industries–why do public health practitioners view them so differently? *Frontiers in Public Health*, *4*(64).

Smyth, B. P., Barry, J., Keenan, E., & Ducray, K. (2010). Lapse and relapse following inpatient treatment of opiate dependence. *Irish Medical Journal*, *103*, 176–179.

Sniehotta, F. ., Scholz, U., & Schwarzer, R. (2005). Bridging the intention – behaviour gap : Planning , self-efficacy , and action control in the adoption and maintenance of physical exercise. *Psychology and Health*, *20*(2), 143–160. https://doi.org/10.1080/08870440512331317670

Snipes, D. ., & Benotsch, E. . (2013). Addictive Behaviors High-risk cocktails and high-risk sex : Examining the relation between alcohol mixed with energy drink consumption , sexual behavior , and drug use in college students. *Addictive Behaviors*, *38*(1), 1418–1423. https://doi.org/10.1016/j.addbeh.2012.07.011

Soares, A. ., Ferreira, G., & Graça Pereira, M. (2016). Depression, distress, burden and social support in caregivers of active versus abstinent addicts. *Addiction Research and Theory*, *24*(6), 483–489. https://doi.org/10.3109/16066359.2016.1173681

Souter, S. . (1997). *Intrinsic and extrinsic sources of motivation for change in drinking behaviour: Development and validation of the Reasons for Change in Drinking (RCD) Scale.* York University Toronto, Ontario.

South, A., & Epidemiology, C. (2017). *Monitoring Alcohol, Tobacco and Other Drug Abuse Treatment Admissions in South Africa* (Issue March).

Sperber, N. ., Sandelowski, M., & Voils, C. . (2013). Patient Education and Counseling Spousal support in a behavior change intervention for cholesterol management. *Patient Education and Counseling*, *92*(1), 121–126. https://doi.org/10.1016/j.pec.2013.02.015

Stafström, M., & Östergren, P. (2014). The Impact of Policy Changes on Consumer Behaviour and Alcohol Consumption in Scania , Sweden 1999 – 2005. *Alcohol and Alcoholism*, *49*(5), 572–578. https://doi.org/10.1093/alcalc/agu038

Stanojević, P., Jovanović, D., & Lajunen, T. (2013). Influence of traffic enforcement on the attitudes and behavior of drivers. *Accident Analysis and Prevention*, *52*, 29–38. https://doi.org/10.1016/j.aap.2012.12.019

Stanton, W. (1971). *Fundamentals of Marketing*. McGraw Hill.

Stevens, E., Jason, L. A., Ram, D., & Light, J. (2014). Investigating Social Support and Network Relationships in Substance Use Disorder Recovery Investigating Social Support and Network Relationships in Substance Use Disorder Recovery. *Substance Abuse*, *36*(4), 396–

399. https://doi.org/10.1080/08897077.2014.965870

Strohacker, K., Galarraga, O., & Williams, D. . (2014). The Impact of Incentives on Exercise Behavior : A Systematic Review of Randomized Controlled Trials. *Annals of Behavioral Medicine*, *48*(1), 92–99. https://doi.org/10.1007/s12160-013-9577-4

Sulekha G. (2011). 11 . The basis of market segmentation. *European Journal of Business and Management*, *3*(9), 45–54.

Tapp, A., Warren, S., Rhodes, C., Condon, L., & Withall, J. (2013). Using social marketing to encourage teenage mothers to breastfeed. *Journal of Social Marketing*, *3*(2), 144–161. https://doi.org/10.1108/JSOCM-04-2012-0015

Thackeray, R. (2010). Creating Successful Price and Placement Strategies for Social Marketing. *Health Promotion Practice*, *11*(2), 166–168. https://doi.org/10.1177/1524839909360892

Thackeray, R., Neiger, B. ., & Hanson, C. . (2007). Developing a Promotional Strategy : Important. *Health Promotion Practice*, *8*(4), 332–336. https://doi.org/10.1177/1524839907308152

Theron, M., Swart, R., Londani, M., Parry, C., Williams, P. ., & Harker, N. (2022). Did COVID-19-Related Alcohol Sales Restrictions Reduce Alcohol Consumption ? Findings from a National Online Survey in South Africa. *International Journal of Environmental Research and Public Health*, *19*(2422), 1–16.

Thøgersen, j. (2005). How May Consumer Policy Empower Consumers for Sustainable Lifestyles ? *Journal of Consumer Policy*, *28*, 143–178. https://doi.org/10.1007/s10603-005-2982-8

Tkaczynski, A., Rundle-Thiele, S. ., & Prebensen, N. . (2018). To segment or not ? That is the question. *Journal of Vacation Marketing*, *24*(1), 16–28. https://doi.org/10.1177/1356766716679482

Törrönen, J., Roumeliotis, F., Samuelsson, E., Kraus, L., & Room, R. (2019). International Journal of Drug Policy Why are young people drinking less than earlier ? Identifying and specifying social mechanisms with a pragmatist approach. *International Journal of Drug Policy*, *64*, 13–20. https://doi.org/10.1016/j.drugpo.2018.12.001

Trangenstein, P. ., Morojele, N. ., Lombard, C., Jernigan, D. ., & Parry, C. D. . (2018). Heavy drinking and contextual risk factors among adults in South Africa : findings from the International Alcohol Control study. *Substance Abuse Treatment, Prevention, and Policy*, 1–12.

Truen, S., Ramkolowan, Y., Corrigall, J., & Matzopoulos, R. (2011). *Baseline Study of the Liquor Industry Including the Impact of the National Liquor Act 59 of 2003*. http://www.thedti.gov.za/business_regulation/docs/nla/other_pdfs/dna_economics_nla_act.pdf (accessed 10 December 2013)

Tse, A. C. ., Yau, O. H. ., Chow, R. P. ., & Lee, J. S. . (2005). Market Orientation , Relationship Marketing Orientation , and Business Performance : The Moderating Effects of. *Journal of International Marketing*, *13*(1), 36–57.

Tuchman, E. (2014). Women and Addiction : The Importance of Gender Issues in Substance Abuse : RPHQ DQG $ GGLFWLRQ 7KH , PSRUWDQFH RI * HQGHU , VVXHV LQ 6XEVWDQFH $ EXVH 5HVHDUFK. *Journal of Addictive Diseases*, *29*(April 2010), :127–138. https://doi.org/10.1080/10550881003684582

Turnbull, J. (2010). The transtheoretical model of change : Examples from stammering The transtheoretical model of change : examples from stammering. *Counselling Psychology Quarterly*, *13*(1), 13–21. https://doi.org/10.1080/09515070050011033

Tweneboah-koduah, E. ., & Owusu-frimpong, N. (2013). Social marketing on AIDS : using Transtheoretical model to understand current condom usage among commercial drivers in Accra , Ghana. *International Journal of Nonprofit and Voluntary Sector Marketing*, *260*(November), 241–260. https://doi.org/10.1002/nvsm

Tynan, A. ., Drayton, J., & Tynan, A. . (2010). Market segmentation Market Segmentation. *Journal of Marketing Management*, *2*(3), 37–41. https://doi.org/10.1080/0267257X.1987.9964020

Ugochukwu, C., Bagot, K. S., Delaloye, S., Pi, S., Vien, L., Garvey, T., & IsHak, W. W. (2013). The importance of quality of life in patients with alcohol abuse and dependence. *Harvard Review of Psychiatry*, *21*(1), 1–17.

Vallis, M., Psych, R., & Macklin, D. (2020). Effective Psychological and Behavioural Interventions in Obesity Management. In *Canadian Adult Obesity Clinical Practice Guidelines: Effective Psychological and Behavioural Interventions in Obesity Management*.

Van Dyke, A. D. (2013). *Examination of personal motivation and interpersonal factors as determinants of alcohol recovery outcomes and changes in adult attachment status during remision from an alcohol use disorder*. University of the Rockies.

Van Walbeek, C., & Blecher, M. (2014). *The economics of alcohol use, misuse and policy in South Africa*.

van Walbeek, C., & Daly, M. (2014). *Alcohol advertising in South Africa: A trend and comparative analysis*. University of Cape Town School of Economics [Online].

Veenstra, R., Dijkstra, J. ., Steglich, C., & Van Zalk, M. H. . (2013). Network-behavior dynamics. *Journal of Research on Adolescence*, *23*(3), 399–412. https://doi.org/10.1111/jora.12070

Veer, E., Golf-Papez, M., & Zahrai, K. (2019). Using the socio-ecological model as an holistic approach to behavioural change. In *In Macro-Social Marketing Insights*. Routledge.

Velicer, W. F., Prochaska, J. O., Fava, J. L., Norman, G. J., & Redding, C. A. (1998). Smoking cessation and stress management : Applications of the Transtheoretical Model of behavior change. *Homeostasis*, *38*(5–6), 216–233.

Vellios, N. G., Economics, M., & Walbeek, C. P. . (2018). Self-reported alcohol use and binge drinking in South Africa : Evidence from the National Income Dynamics Study , 2014 - 2015. *South African Medical Journal*, *108*(1), 33–39. https://doi.org/10.7196/SAMJ.2018.v108i1.12615

Verplanken, B. (2018). Promoting Sustainability: Towards a Segmentation Model of Individual and Household Behaviour and Behaviour Change. *Sustainable Development*, *205*(August 2017), 193–205. https://doi.org/10.1002/sd.1694

Vigario, D. (2019). *An investigation into consumer buying behaviour of alcoholic beverages in specialist retailer outlets in South Africa*. Stellenbosch.

Voils, C. ., Gierisch, J. ., Jr, W. S. ., Sandelowski, M., Smith, R., Bolton, J., & Strauss, J. . (2014). Differentiating Behavior Initiation and Maintenance : Theoretical Framework and

Proof of Concept. *Health Education and Behaviour*, *4*(3), 325–336. https://doi.org/10.1177/1090198113515242

Vries, R. A. J. ., Truong, K. ., Kwint, S., Drossaert, C. H. ., & Evers, V. (2016). Crowd-Designed Motivation : Motivational Messages for Exercise Adherence Based on Behavior Change Theory. *In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, 297–308.

Vyncke, P. (2002). Lifestyle Segmentation. *European Journal of Communication*, *17*(4), 445–463.

Walbeek, C. ., & Chelwa, G. (2021). The case for minimum unit prices on alcohol in South Africa. *South African Medical Journal*, *111*(7), 680–684.

Wall, A. P. (2007). Government " demarketing " as viewed by its target audience. *Marketing Intelligence & Planning*, *25*(2), 123–135. https://doi.org/10.1108/02634500710737915

Wall, M., Casswell, S., Callinan, S., Chaiyasong, S., Cuong, P. ., Gray-phillip, G., & Parry, C. D. . (2018). Alcohol taxes ' contribution to prices in high and middle-income countries : Data from the International Alcohol Control Study. *Drug and Alcohol Review*, *37*(October 2017), 27–35. https://doi.org/10.1111/dar.12638

Watakakosol, R., Suttiwan, P., Ngamake, S. ., Raveepatarakul, J., Wiwattanapantuwong, J., & Tuicomepee, A. (2020). Integration of the Theory of Planned Behavior and Transtheoretical Model of Change for Prediction of Intentions to Reduce or Stop Alcohol Use among Thai Adolescents Integration of the Theory of Planned Behavior and Transtheoretical Model of. *Substance Use & Misuse*, *0*(0), 1–9. https://doi.org/10.1080/10826084.2020.1837168

Wayne, W. . (2019). *The Transtheoretical Model (Stages of Change)*. Behavioral Change Models. https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchangetheories/behavioralchangetheories6.html

Weber, W., Reinhardt, A., Rossmann, C., & Weber, W. (2020). Lifestyle Segmentation to Explain the Online Health Information – Seeking Behavior of Older Adults : Representative Telephone Survey Corresponding Author : *Journal of Medical Internet Research*, *22*(6), 1–14. https://doi.org/10.2196/15099

Westberg, K., Stavros, C., Smith, A. C. T., Munro, G., & Argus, K. (2018). An examination of how alcohol brands use sport to engage consumers on social media. *Drug and Alcohol Review*, *37*(1), 28–35. https://doi.org/10.1111/dar.12493

White, W. . (2001). Pre-A . A . Alcoholic Mutual Aid Societies. *Alcoholism Treatment Quarterly*, *19*(2), 37–41. https://doi.org/10.1300/J020v19n02

Wiebe, G. . (1958). Merchandising Commodities and Citizenship on Television. *Public Opinion Quarterly*, *15*(1951–52), 679–691.

Wilkie, D. C. ., & Rao, H. . (2022). Beyond brand personality. A multidimensional perspective of self-congruence. *Journal of Marketing Management*, *00*(00), 1–32. https://doi.org/10.1080/0267257X.2022.2041069

Witvorapong, N., Ratisukpimol, W., & Watanapongvanich, S. (2019). Effectiveness of alcohol-prevention social marketing in the presence of alcohol advertising. *Journal of Social Marketing*, *9*(3), 309–328. https://doi.org/10.1108/JSOCM-01-2018-0003

Woods, C., Mutrie, N., & Scott, M. (2002). Physical activity intervention : a Transtheoretical

Model-based intervention designed to help sedentary young adults become active. *Health Education Research, 17*(4), 451–460.

World Health Organization. (2019). *Global status report on alcohol and health 2018.*

Wray, T. B., Merrill, J. E., & Monti, P. M. (2014). Using ecological momentary assessment (EMA) to assess situation-level predictors of alcohol use and alcohol-related consequences. *Alcohol Research: Current Reviews, 36*(1), 19.

Wymer, W. (2021). Addressing complex social problems with a multi-environmental stakeholder coalition. *International Review on Public and Nonprofit Marketing, 18*(3), 403–418.

Xi, B., Veeranki, S. P., Zhao, M., Ma, C., Yan, Y., & Mi, J. (2017). Relationship of Alcohol Consumption to All-Cause, Cardiovascular, and Cancer-Related Mortality in U.S. Adults. *Journal of the American College of Cardiology, 70*(8), 913–922. https://doi.org/10.1016/j.jacc.2017.06.054

Xiao, J. J., O'Neill, B., Prochaska, J. M., Kerbel, C. M., Brennan, P., & Bristow, B. J. (2004). A consumer education programme based on the Transtheoretical Model of Change. *International Journal of Consumer Studies, 28*(1), 55–65. https://doi.org/10.1111/j.1470-6431.2004.00334.x

Yang, Z., Schaninger, C. ., & Laroche, M. (2013). Demarketing teen tobacco and alcohol use : Negative peer in fl uence and longitudinal roles of parenting and self-esteem ☆. *Journal of Business Research, 66*(4), 559–567. https://doi.org/10.1016/j.jbusres.2012.01.004

Yeomans, H. (2013). Blurred visions : experts , evidence and the promotion of moderate drinking. *The Sociological Review, 78,* 58–78. https://doi.org/10.1111/1467-954X.12100

Yu, D. (2013). Youth unemployment in South Africa revisited Youth unemployment in South Africa revisited. *Development Southern Africa*, *30*(4–5), 545–563. https://doi.org/10.1080/0376835X.2013.830964

Zeithaml, V. ., & Bitner, M. . (2000). *Services Marketing: Integrating Customer Focus Across the Firm*. McGraw Hill.

Zerhouni, O., Bègue, L., & Brien, K. S. . (2019). How alcohol advertising and sponsorship works : Effects through indirect measures. *Drug and Alcohol Review*, *38*(May), 391–398. https://doi.org/10.1111/dar.12929

Zharekhina, L., & Kubacki, K. (2015). What messages does social marketing advertising send? A content analysis of advertisements aiming to minimise harm from alcohol consumption. *International Journal of Nonprofit and Voluntary Sector Marketing*, *20*(4), 285–298. https://doi.org/10.1002/nvsm.1531

Zhong, H., & Schwartz, Æ. . (2010). Exploring Gender-Specific Trends in Underage Drinking Across Adolescent Age Groups and Measures of Drinking : Is Girls ' Drinking Catching Up with Boys '? *Journal of Youth Adolescence*, 911–926. https://doi.org/10.1007/s10964-009-9413-0

Zundert, R. M. P. ., Kuntsche, E., & Engels, R. C. M. . (2012). In the heat of the moment : Alcohol consumption and smoking lapse and relapse among adolescents who have quit smoking. *Drug and Alcohol Dependence*, *126*(1–2), 200–205. https://doi.org/10.1016/j.drugalcdep.2012.05.016

Appendices

Appendix 1: Survey Instrument

PROXIMAL AND DISTAL ANTECEDENTS OF BEHAVIOUR CHANGE MAINTENANCE

Survey Flow

Block: Proximal and Distal Antecedents of Behaviour Change Maintenance (41 Questions)

Page Break

Start of Block: Proximal and Distal Antecedents of Behaviour Change Maintenance

Good day My name is Leeford Ameyibor and I am a PhD student in Social Marketing at the University of the Witwatersrand, Johannesburg. As part of my studies, I have to undertake a research project, and I am investigating personal and environmental determinants of alcohol consumption changed behaviour maintenance under the supervision of Dr Yvonne K. Saini. The aim of this research project is to establish personal and environmental factors that determines the changed behaviour maintenance of former alcohol users. As part of this project, I would like to invite you to take part in answering a questionnaire. This activity will involve giving your honest opinion on questions asked and will take around 25 minutes of your time. There will be no personal costs to you if you participate in this project, you will receive an incentive for participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The survey will be completely confidential and anonymous as I will not be asking for your name or any identifying information, and the information you give to me will be held securely and not disclosed to anyone else. I will be using a pseudonym (false name) to represent your participation in my final research report. If you experience any distress or discomfort at any point in this process, you may stop the survey or resume another time. If you need some support or counselling services following the answering of the survey questions, please contact Alcohol Anonymous (AA) on 0866935135, 0861435722, 0659325270, 0114211748 and 0129935827, these counselling services are available free of charge.

Please note that completing and submitting this questionaire would be taken to mean consent to participate.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you. The data collected from this research project will be stored in a secured external data storage for 10 years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za Yours sincerely, Leeford EK Ameyibor *Researcher: Leeford Edem Kojo Ameyibor Email: 1766515@students.wits.ac.za Phone: +27617993634 Supervisor: Dr. Yovonne K. Saini Email: Yvonne.Saini@wits.ac.za. Phone: +27720493484*

Which best describes your present history/ circumstance with alcohol use?

- ○ former alcoholic (1)
- ○ former frequent heavy social drinker (Social drinkers describes alcohol consumers in any social gatherings such as parties etc) (2)
- ○ None of the above (6)

Q3. CHANGE MOTIVES (Tell us about your motives for quitting)

Intrinsic Motives

Self-Concerns

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
My life was out of control because of my drinking (1)	○	○	○	○	○	○	○
I was missing out on things because alcohol is too large a part of my life (2)	○	○	○	○	○	○	○
I want to get my life back on track (3)	○	○	○	○	○	○	○
I didnt like the person I've become as a result of my drinking (4)	○	○	○	○	○	○	○

Health Concerns

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I have physical symptoms that indicate that alcohol is hurting my health (1)	○	○	○	○	○	○	○
My doctor advised me to stop drinking (2)	○	○	○	○	○	○	○
I think that drinking was harming my health. (3)	○	○	○	○	○	○	○
I was afraid that drinking will shorten my life (4)	○	○	○	○	○	○	○

Extrinsic Motives

Social Influence

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
People I really care about want me to change my drinking habit (1)	☐	☐	☐	☐	☐	☐	☐
I was afraid of what my drinking was doing to my family (2)	☐	☐	☐	☐	☐	☐	☐
I don't want people I care about to think of me as a drunk or alcoholic (3)	☐	☐	☐	☐	☐	☐	☐
I can improve my relationship with those I care about (4)	☐	☐	☐	☐	☐	☐	☐

Situational Influence

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I stopped drinking to do my job well and continue being employed (1)	○	○	○	○	○	○	○
My employer wants me to stop drinking (2)	○	○	○	○	○	○	○
I want to improve my current financial situation (3)	○	○	○	○	○	○	○
Drinking seriously limits my ability to get a decent place to live and enjoy normal leisure activities (4)	○	○	○	○	○	○	○

Q4 MAINTENANCE MOTIVES (Tell us about your motives for sustaining the changed behaviour)

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I enjoy greatly the benefits of my new changed behaviour (1)	○	○	○	○	○	○	○
I am satisfied with the gains of my new changed behaviour (2)	○	○	○	○	○	○	○
I am confident in my knowledge and skills to help me take action to sustain my new behaviour (3)	○	○	○	○	○	○	○
I am confident in family and friends to help me take action to sustain my new behaviour (4)	○	○	○	○	○	○	○

Q5 SELF REGULATION (Tell us about your ability to self-check against going back to the old behaviour)

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
When it comes to deciding about a change, I feel overwhelmed by the choices (1)	○	○	○	○	○	○	○
I have trouble following through with things once I've made up my mind to do something (2)	○	○	○	○	○	○	○
I can stick to a plan that's working well (3)	○	○	○	○	○	○	○
As soon as I see a problem or challenge, I start looking for possible solutions. (4)	○	○	○	○	○	○	○

Q6 SELF- EFFICACY (Tell us about your resolve to persevere)

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I will be able to achieve most of the goals that I have set for myself. (1)	○	○	○	○	○	○	○
When facing difficult tasks, I am certain that I will accomplish them. (2)	○	○	○	○	○	○	○
I will be able to successfully overcome many challenges. (3)	○	○	○	○	○	○	○
Compared to other people, I can do most tasks very well. (4)	○	○	○	○	○	○	○

Q8. MARKETING FUNCTION (Tell us about how marketing activities affects your efforts to quit and sustain the quit)

Alcohol Product Brand

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
My favourite alcohol brands tempts me to buy (1)	○	○	○	○	○	○	○
I am attracted by the labelling and design of my favourite brand (2)	○	○	○	○	○	○	○
I derive great satisfaction from my favourite alcohol brand (3)	○	○	○	○	○	○	○

Alcohol Pricing

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Price was a major consideration for me in buying alcohol products (1)	○	○	○	○	○	○	○
Cheap alcohol pricing tempts me to buy (2)	○	○	○	○	○	○	○
Regardless of the price, i will not buy any alcohol brand again. (3)	○	○	○	○	○	○	○

Alcohol Promotion

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Whenever i see alcohol advertisements it tempts me to drink (1)	○	○	○	○	○	○	○
Sales promotions through price discounts tempts me to buy more alcohol (2)	○	○	○	○	○	○	○
Seeing famous people endorse alcoholic brands tempts me to indulge (3)	○	○	○	○	○	○	○

Alcohol Placements/Distributions

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
There are lots of outlets I can easily buy alcohol brands (1)	○	○	○	○	○	○	○
My neighbourhood has so many alcohol sales outlets and that tempts me to buy (2)	○	○	○	○	○	○	○
Its easy to get any type of alcohol brand throughout the country (3)	○	○	○	○	○	○	○

Q9. CHANGE INITIATION (Tell us about your resolve to initiate behaviour change)

	Never (1)	Seldom (2)	Occasionally (3)	Frequently (4)	Repeatedly (5)
I do something nice for myself for making efforts to change (1)	○	○	○	○	○
I think about how my drinking is hurting people around me (2)	○	○	○	○	○
I remove things from my home or work that remind me of drinking (3)	○	○	○	○	○
I have someone who listens when I want to talk about my drinking (4)	○	○	○	○	○

Q10. BEHAVIOUR CHANGE MAINTENANCE (Tell us about your resolve to sustain the behaviour change)

	Never (1)	Seldom (2)	Occasionally (3)	Frequently (4)	Repeatedly (5)
I tell myself i have the will to make critical decisions concerning my drinking habit (1)	○	○	○	○	○
I reward myself when I don't give in to my urge to drink. (2)	○	○	○	○	○
I avoid situations that encourage me to drink (3)	○	○	○	○	○
I try to think about other things when I begin to think about drinking. (4)	○	○	○	○	○

Q12 EASE OF CHANGE ADAPTATION (how easy/difficult has it been adapting to a changed behaviour?)

	Extremely difficult (1)	Moderately difficult (2)	Slightly difficult (3)	Neither easy nor difficult (4)	Slightly easy (5)	Moderately easy (6)	Extremely easy (7)
Adapting to the new behaviour requirements has been…. (1)	○	○	○	○	○	○	○
I find compromises to make in new behaviour… (2)	○	○	○	○	○	○	○
Overall my coping ability with the new behaviour has been… (3)	○	○	○	○	○	○	○

Q13 LONGEVITY OF SOBRIETY (How long have you stayed off alcohol?)

○ > More than 6 months (1)

○ < Less than 6 months (2)

Q14 DEMOGRAPHICS AND PSYCHOGRAPHICS INFORMATION

Age

- ○ 15-24 (2)
- ○ 25-34 (3)
- ○ 35-44 (4)
- ○ 45-54 (5)
- ○ 55-64 (6)
- ○ 65-74 (7)
- ○ 75> (8)

Q15 state the year in which you were born (eg. 1983)

_____

Gender

- ○ Male (1)
- ○ Female (2)
- ○ Other (3)

Education

- Matric (1)
- Diploma (2)
- Bachelor's degree (3)
- Post graduate degree (4)
- No education (5)

Income

- R0 - R4,999 (1)
- R5000 - R9,999 (2)
- R10,000 - R19, 999 (3)
- R20,000 - R29,000 (4)
- Over R30,000 (5)

Employment Status

- ○ Employed (1)
- ○ Entrepreneur (2)
- ○ Student (3)
- ○ Unemployed (4)
- ○ Self employed (5)
- ○ Other (6)

Marital Status

- ○ Married (1)
- ○ Cohabitating (2)
- ○ Single (3)
- ○ Divorced (4)
- ○ Widowed (5)
- ○ Separated (6)

What is your Province of residence?

- ○ Eastern Cape (1)
- ○ Free State (2)
- ○ Gauteng (3)
- ○ Kwazulu-Natal (4)
- ○ Limpopo (5)
- ○ Mpumalanga (6)
- ○ North West (7)
- ○ Western Cape (8)
- ○ Northern Cape (9)

Ethnicity

- African (1)
- Asian (2)
- Coloured (3)
- Indian (4)
- Mixed race (5)
- White (6)
- Other (7)

Q16. Which statements best describe extremely well the people you **socialize with** on a regular basis? (choose as many as apply)

- [ ] Popular (1)
- [ ] Cool, Hip (2)
- [ ] Unique, individualistic (3)
- [ ] Macho (4)
- [ ] Tough, rugged (5)
- [ ] Mature (6)
- [ ] Authentic, real (7)
- [ ] Honest, sincere (8)
- [ ] Good looking (9)

I'm interested in: (choose as many as apply)

- [ ] A long term relationship (1)
- [ ] A relationship with growth potential (2)
- [ ] A relationship with no strings attached (3)
- [ ] Someone with shared interests and activities to spend time with (4)

For a relationship to work for me, it's most important that I'm satisfied… (choose as many as apply)

- [ ] Physically (1)
- [ ] Emotionally (2)
- [ ] Spiritually (3)
- [ ] Intellectually (4)

When it comes to parties: (choose as many as apply)

- [ ] I'm just watching and hanging out (1)
- [ ] I'm watching out for and taking care of my friends (2)
- [ ] I find the center of the party (3)
- [ ] I make the party happen (4)
- [ ] I'm worried about how I'll feel in the morning (5)

When I get dressed to go out with my friends, I'm: (choose as many as apply)

- [ ] Ready for a photo shoot (1)
- [ ] Likely to get compliments on what I'm wearing (2)
- [ ] Neatly dressed (3)
- [ ] Content if my clothes are at least clean (4)

THANKS FOR PARTICIPATING!

Appendix 2: Ethics clearance certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Ameyibor

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H20/08/03**
PROJECT TITLE	Proximal and Distal Antecedents of Behaviour Change Maintenance
INVESTIGATOR(S)	Mr L Ameyibor
SCHOOL/DEPARTMENT	Wits Business School/
DATE CONSIDERED	21 August 2020
DECISION OF THE COMMITTEE	Approved Risk Level: Medium
EXPIRY DATE	02 November 2023

DATE 03 November 2020 **CHAIRPERSON** _____
(Professor J Knight)

cc: Supervisor : Dr Y Saini

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to complete a six (6) month progress report.**

_____ 3 / 11 / 2020
Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix 3

Table 7: Normality Diagnostics

Variables	Skewness		Kurtosis		
	Statistic	**Error**	**Statistic**	**Error**	Interpretation
Self-Concerns	-0.711	0.109	-0.419	0.218	Normal
Health Concerns	-0.414	0.109	-0.815	0.218	Normal
Social Influence	-1.038	0.109	0.636	0.218	Normal
Situational Influence	-0.396	0.109	-0.747	0.218	Normal
Alcohol Product	-0.366	0.109	-0.752	0.218	Normal
Alcohol Pricing	-0.183	0.109	-0.891	0.218	Normal
Alcohol Promotion	0.227	0.109	-1.105	0.218	Normal
Alcohol Placement	-1.016	0.109	1.110	0.218	Normal
Self-Regulation	-1.305	0.109	2.816	0.218	Not Normal
Self-Efficacy	-1.697	0.109	4.151	0.218	Not Normal
Change Initiation	-0.315	0.109	-0.745	0.218	Normal
Behaviour Change Maintenance	-0.790	0.109	0.482	0.218	Normal
Ease of Change Adaptation	-0.053	0.109	-0.610	0.218	Normal

Longevity of Sobriety	-0.430	0.109	-1.822	0.218	Not Normal

Note: Longevity of sobriety (dummy: 0=Less than 6 months; 1=6 months or more)

Appendix 4: Empirical literature review

Table 1: Alcohol consumption behaviour change and maintenance studies within the last decade of 2012-2022

Author/Year	Objective	Methodologies	Key findings	Implications
Müller et al. (2019)	Longitudinal observation of the effect of self-efficacy and motivation after a1 year follow and its mediation role of the relationships of self-efficacy at discharge from a treatment of drinking outcomes and a 5 year folow ups.	Simple and serial multiple mediation analysis of a longitudinal data.	Self-efficacy predicted abstinance percent of days (PDA) at discharge. Mediation results shows that self-efficacy during discharge was linked to self-efficacy and motivation.	The results show that self-efficacy and motivation are crucial in determining long term sustainance of alcohol consumption changed behaviour maintenance.
Fry (2014)	To explore how members of an online alcohol consumption reduction community learn, construct and engage in alcohol reduction consistencies	Analysis of Blog data from 15 participants and interviews of key informants	Findings show that learning of new alcohol consumption consistencies occurs through three ways of learning methods; engagements, imagination and alignments; enabling a collective sense of connection in the creation of new alcohol related habits, transmission of values and norms beyond the community	The study provides social marketers with the information that learning of drinking reduction and abstinance is continously negotiated and enabled through socially engineered conditions and relationships.

Witvorapong et al. (2019)	To evaluate the effectiveness of a national alcohol prevention campaign in the face of alcohol advertising in Thailand	A cross-sectional data from 2011-2014 with sample of n=10,133 was analsed with generalised ordered logit.	Findings show that exposure to both campaign and advertising yielded both positive and negative influences on alcohol consumption	The study highlights the importance of accounting for a marketing activity such as advertising as a counterforce in campaign interventions.
Lumb (2020)	To explore how a national students alcohol intervention programe is changing patterns of drinking	Students and alcohol national survey was gathered through survey distribution using student's database. A sample of n=2,215 was used.	Findings showed a misalignment of alcohol drinks perceived to be consumed prior to school and what was actually reported. There was however an incremental change in drinking habits after the intervention programe	Rolled out alcohol impact programes could be used to solve the harmful consequencies of alcohol use
Rundle-Thiele et al. (2013)	To highlight an intervention programe that combines social marketing and education targeting 11-16 year olds in Australia.	Social marketing benchmark criteria, formative research and competitive analysis were used to create, execute and evaluate an intervention.	Attitudinal change was seen in both boys and girls schools whiles a post hoc test indicated clear gender differences in respect to intervention response.	Social marketing and education intervention combination can provide a good effect on changing attitudes on alcohol consumption whiles being effective at changing behavioural intentions of females towards alcohol consumption.

Watakakosol et al.(2020)	To test the components of theory of planned behaviour and readiness to change based on the transtheoritical model of change to find useful construct for designing intervention on alcohol for the youth.	A sample of 825 Thai student drinkers participated in the study. A hierarchical regression was used to predict change initiation.	The results show that Theory of planned behaviour constructs and readiness to change constructs predicted intentions to reduce and stop alcohol use among Thai students	Interventions should evaluates readiness of change and utilize good processes to effect change at each stage. Also evaluate individuals planned behavioural control with regards to norms and attitudes
Bishop (2018)	To undertake a scoping review on long term health behaviour change	Scoping literature review on literature related to health related behaviour change.	The review shows that as people age, especially with alcohol consumption they tend to stop or change behaviour related to consumption. These changes also appear to be accelerated by self guided changes.	There is a clear opportunity to cultivate and incoporate the habit of self-guided health related behaviour changes into interventions because it has proven to be sustainable in behaviour change and maintenance.
Sahadev (2020)	To provide methods of segementing a population of heavy drinkers using their health management styles as bases for segmentation	Cluster analysis on drinking population for segmentation.	Two segments of drinking population was identified based on the differences in the extent of reliance and trust they place on health service professionals	Segmentation provides insights into the level of alcohol drinkers dependence on the health care system.

Josefsson et al. (2018)	To determine whether a change in marital status is followed by a change in health behaviour	A longitudinal study that followed a sample of 81,925 participants between 2000-2013. 327,700 participants were however analysed at the data collection phase.	Unhealthy related behaviours was associated with changes in marital status. There were gender differences in the effects albeit the effects seems consistent across genders.	Association between changes in relationship status and health behaviour changes gives social marketers and health practitioners insights into how varying relationship status affect the maintenance of healthy behaviour thereby highlighting the importance of healthy relationships in promoting healthy behaviours.
Säfsten et al. (2018)	To longitudinally assess the harzadous use of alcohol.	Longitudinal cohort study with additional follow ups.	Inreasingly each cohort reported a drop in harzadous use of alcohol. Favourable health behaviours such as exercises were associated with the health behaviour changes.	Eventhough more audience tend to quit unhealthy behaviours incrementally, other healthy behaviours may provide a catalyst to hasten the maintenance of the initial desired behaviour..
Pedersen et al. (2018)	To determine predictors of alcohol retention programe for young people with alcohol and other drug and sexual risk behaviours	A four session Alcohol and other drug (AOD) reduction programme was offered to 100 audience and examined if retention was predicted by demographics, homelessness and severity.	The bivariate analysis shows that the audience are unlikely to be retained if they slept rough or use more of alcohol.	The results has implications for guiding social marketers and intervention programmes to focus on important factors that promotes the focus attention span of audiences in an intervention programe.

Michie et al. (2012)	To develop a reliable taxonomy for behaviour change methods and to asesses whether the use of behavioural control techniques might reduce excessive alcohol intake in an intervention context	A selection of treatment manuals and guidance were identified through expert's consultation. Behavioural control techniques were analysed into two coders	Results show that the behavioural control technique of "prompt recordings" was associated with behaviour change effectiveness	This results reiterates the use of self-monitoring in intervention campaigns from change initiaion to maintenance to ensure effective beaviour change and maintenance sustainability.
Stafström and Östergren (2014)	To analyse how the deregulation in traveling allowance of alcohol beverages have affected the consumption of alcohol.	Random sampled two cohorts study of a sampled population of 8612 who were alcohol consumers in first study T1 and also aged between 18-80 years.	Aggregate age adjusted mean did not change significantly between T1 and T2. Consumptions went up when alcohol was bought from private perons, however at follow ups, consumptions went down when the markets were liberalised and open.	Deregulation of alcohol does not necessarily lead to spikes in alcohol consumption, however any attempt to introduce prohibition rules might drive consumption volumes upwards.

Casswell et al. (2016)	To investigate alcohol consumption behaviours amenable to policy interventions.	Analyses of a cross sectional survey data was analysed using Bayesian path analysis. A sample of 1,900 drinkers between the ages of 16-85 years	Postponed purchases predicted larger alcohol product purchased on and off premise and more drinking on premise only. Younger and male audiences paid lower prices which mediated larger quantities consumed on premise.	Young people, males and low income earners are demograhic profiles that are ripe for policy interventions in their alcohol consumption behaviour.
Kaewpramkusol et al. (2019)	Examining a local alcohol policy against global alcohol policy strategy	Semi-structured interviews were executed with government, academia and civil society. Outcomes were coded and thematically analysed.	Government have had difficulties in regulating alcohol marketing activities due to industry size and pressure from stakeholders. Current legal framework does not the capacity to deal with the innovative marketing tactics of these alcohol brands.	Despite the obvious gaps in alcohol legislative framework, stronger legal frameworks should target alcohol sponsorhips and branding activities due to its sophistiscation.

Parsons et al. (2013)	To measure the effect of alcohol pricing and content on the consumption patterns of youth in Australia and New Zealand.	An experimental approach to examine the effects of alcohol pricing and content on levels of consumption. A chi squre analysis was used to test the hypthesis.	Results show that social norms have large effect than pricing in influencing consumption patterns.	The findings shows that instead of over emphasising on fiscal and regulatory frameworks in controlling consumption patterns, social marketers should pay attention to social norms as a drinking pattern influencer.
Dyke (2013)	To examine interpersonal and intrapersonal variables that may affect the motivational activities involved in the initiation and maintenance of alcohol changed behaviour	Self-administered questionaire was given to a sample size of 226 audiences.	The sudy found that unhealthy relationships had different motivation and external motivations. The more secured a relationship becomes the more likely behaviour change maintenance is guranteed.	The results have implications for families, individuals and practitioners looking for motivational factors that helps sustain changed behaviours. Long term stable relationship has proven to ensure positive recovery outcomes.

Hamilton et al. (2021)	To examine the daily association between drinking intentions and drinking behaviour. Past drinking behaviour was also tested with current social environmental factors as moderators of daily intentions and actual drinking behaviours.	The hypothesis was tested using two different micro-longitudinal studies of college students with a sample size of n=1641,540 using survey instruments.	The study found that drinking intentions strongly predicted drinking behaviour of individuals with less frequent past drinking behaviour. Drinking intentions also predicted drinking among those with low drinking environment.	The findings shows the interplay between drinking intentions, the drinking environment and actual consumption in ways which can guide interventions in tweeking the environment for a good drinking outcomes.
Farrell and Gordon (2012)	To explore how critical social marketing can help evaluate the nature of alcohol marketing and its regulatory effectiveness in emrging markets.	A sample of 114 alcohol marketing campaigns from Malawi, India, Malaysia, Philippines, Nigeria, Sri Lanka and Thailand were evaluated against a benchmark regulatory code.	The study found most of these alcohol marketing contravening the benchmarked regulatory code thus going against the best practices in managing the marketing of alcohol.	The study outcomes has implications for upstream and midstream social marketing opportunities in emerging markets in addressing the gaps in alcohol marketing regulatory frameworks.