THE ROLE OF ASSAULT SEVERITY, RAPE MYTH BELIEFS, PERSONALITY FACTORS, ATTRIBUTION STYLE AND PSYCHOLOGICAL IMPACT IN PREDICTING COPING WITH RAPE VICTIMIZATION

by

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DECLARATION OF ORIGINALITY

I hereby declare that this thesis, unless specifically indicated to the contrary in the text, is my own original work, and that it has not been submitted for any degree at another university.

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ABSTRACT

This study is aimed at understanding the role of assault severity, personality traits and rape myths in predicting rape victims' psychological responses and coping styles. Specifically, the study assessed the mediating role of victims' attribution in predicting psychological impacts of rape victimization and the coping styles. On the basis of theory, it was postulated that the severity of assault (as determined by either the use of physical force and/or the presence of weapons); intrapersonal resources of hardiness; and the acceptance of rape myths would have a direct influence on survivors' psychological impact and on coping. The thesis provides comprehensive coverage of the prevalence of rape victimization; the trauma and psychological impacts of rape victimization; coping with rape victimization; and the theory on the role of social cognition (appraisal and attribution) in explaining victims' responses to rape.

The theoretical conceptualisation underpinning the study offers a unique integration of this body of knowledge within the South African context. In investigating the research question, two hundred and fifty adult black (African) South African women who had experienced rape in the previous month were interviewed about the event and their subsequent responses. The interviewees were drawn from Xhosa, SePedi and Zulu speaking communities. The study was located within the quantitative research tradition. A structured interview questionnaire was developed. Descriptive statistics were calculated and the emphasis of the analysis was in the area of the Structural Equation Model. The model was successful in terms of explained variance in accounting for the two types of coping; approach and avoidance coping dimensions followed by the psychological impact and attribution. The results showed psychological impact as explained through the symptoms of Hyperarousal, Intrusion and Avoidance had the greatest influence on coping of rape survivors. As hypothesized, the results confirmed that an increase in rape assaults severity resulted into increased levels of psychological distress. The findings indicated that internal styles of self-blame attribution (behavioural and characterological attribution) were prevalent among victims of rape in the present study. Although hardiness

(commitment and control) dimensions were not found to significantly influence coping, an orientation of control and commitment amongst survivors was found to significantly influence the attribution styles. Furthermore, the control dimension was found to have a significant influence on victims' psychological distress. Interestingly, the results revealed that acceptance of rape myths among survivors resulted in a decrease in psychological distress.

The findings demonstrate the strength of the current study in the development and testing of theoretically based models of processing rape victimization recovery among rape survivors. The implications of the data are explored.

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CHAPTER 1

INTRODUCTION

In every 17 seconds, a woman, including female infants are raped in South Africa. Hicks, R. (2002; p1-9; in Sunday Times)

Hick's observation attests to the fact that rape is a distressingly common traumatic event experienced by many women, and gives a succinct picture of the pervasiveness of rape within the South African context. As the country continues to struggle with the legacy of apartheid and is plagued by the HIV/AIDS pandemic, rape remains a pervasive form of sexual crime in South Africa. In this regard, South Africa is considered to be a "rape prone society". This chapter begins by outlining current theoretical views on the definition of rape, including the role of legal reforms and scholars in helping to define rape. The prevalence rate of rape in the world and South Africa is discussed. Some of the risk factors associated with rape victimization against women are also discussed in this section.

1.1 DEFINITION OF RAPE

The study of rape, in particular the prevalence of rape as well as the impact of sexual violence against women, has burgeoned over the past few decades. In the context of increasing reports on rape across the world, the definition of rape from a broad range of perspectives has improved our understanding of this phenomenon. In earlier studies, rape was defined as the "penile-vaginal penetration of a female forcibly against her will". This definition excluded sexual offences other than penile-vaginal penetration, intercourse with girls below the statutory age of consent, rapes where the offender was the legal or common-law spouse of the victim and rapes of men.

The years of legal reform of how rape is treated in law have however altered the very acts that are defined as rape and broadened the scope of the crime to

include oral and anal penetration and a greater range of perpetrators (Estrich, 1987; Seales & Berger, 1987). As such, rape is typically defined as the non-consensual sexual penetration of an adolescent or adult obtained through physical force, by threat of bodily harm or when the woman is unable to consent. It is sexual intercourse perpetrated against the victims' will or sexual intercourse with a person who is unable to give consent due to age or mental impairment. Thus, the defining characteristic of rape is lack of choice or consent to engage in sexual intercourse by the woman (Rozèe, 1993). To place a greater emphasis on the behaviour of the offender, some researchers have adopted the construct of "sexual assault violence". The intent of these studies has been to include a range of experiences, including sexual abuse in childhood; non-forcible, verbally coerced sex; unwanted contact with genital parts of the victims' body; as well as attempted and completed rape (Koss, 1993). As such, Saltzman, Fanslow, McMahon, and Shelley (1999) define sexual violence as involving physical force to compel a person to engage in a sexual act against his or her will whether or not the act is completed or attempted, and includes sexual acts involving persons unable to decline participation. Sexual assault is the term also used for other forms of non-consensual sexual activity.

In broadening further the definition of rape, Rozèe (1993) proposed that rape could be defined in terms of two major categories, namely, normative (tolerated) and non-normative (transgressive). According to Rozèe, normative or tolerated rape is defined as genital contact that the female does not choose or want, but that does not violate norms of acceptable behaviour held by self-isolated groups or subcultures, institutions and even nations. Normative rape is a diverse category that potentially encompasses a wide range of genital contact, including that occurring as part of cultural defloration rituals and child rapes occurring under the guise of arranged marriages. Normative rape may also include rapes by acquaintances or dates, and marital rape as well as punitive rape. The latter is defined as any genital contact that is used in a disciplinary or punitive manner. Other forms of normative rape include rape as a weapon of warfare, exchange rape, ceremonial rape and status rape.

By contrast, rape that is non-normative or transgressive is defined as “illicit, un-condoned genital contact that is both against the will of the woman and in violation of social norms for expected behaviour” (Rozee, 1993). Transgressive rape represents the typical view of rape as forced sex by a complete stranger. In some societies, statutes restrict legal recourse for this type of rape only to those women with a respectable reputation (Heise, Pitanguy, & Germain, 1993). In certain countries, women’s social class has been used to determine the value of a woman who is raped and effect punishment of the rapist (Coomaraswamy, 1992). For example, in Sri Lanka, if a virgin under the age of 18 is raped by a man from a lower class, he will be punished; but if a middle-aged woman, who is of a lower class and independent, is raped by an acquaintance, she is advised to nurse her wounds at home. In Palestine, Chile, Guatemala and Peru, a man who rapes a minor is exonerated if he agrees to marry her (Heise, Lori, Pitanguy, & Germain, 1993).

To an extent, these attitudes and practices reflect the various definitions of rape across cultures. They may also be reflective of cultural myths about rape including notions such as “the victim provoked the assault”, “she enjoyed it”, and “only promiscuous women get raped”, and “raped women are” damaged goods”.

Apart from the different cultural definitions of rape, the feminist lobby has also helped transform rape from merely a social or criminal justice issue to an issue of health and human rights (Bunch, 1991). In its focus on women’s health, the feminist approach to research has focused on health and well-being in its broadest sense. It emphasizes the particular social, cultural and political contexts that shape individuals. From this perspective, rape has since been conceptualised as a violation of women’s bodily integrity and therefore an abuse of their fundamental human rights. This perspective is reflected in the United Nations’ (UN) Declaration of the Eradication of Violence Against Women, which characterizes rape as “one of many forms of gender-based violence that is likely to result in physical, sexual, psychological harm and or suffering to women” (UN Resolution 48/104, December, 1993). The declaration specifically lists marital

rape; sexual abuse of female children, sexual harassment and trafficking of women amongst many acts explicitly covered by the definition.

These attempts to define rape have resulted in a transformation in our understanding of the notion of rape and have helped women realize the applicability of the term rape to incidents they have experienced. To an extent, the conceptualisation of rape in this regard has enabled researchers to examine the universality of rape across different nations and cultures, including South Africa. To the extent possible, in the following paragraphs we discuss rape within the South African context.

1.1.1 Rape in the South African Context

The advent of democracy in South Africa brought with it, heightened levels of awareness of violence against women and children within the society. The past decade of South African democracy has been marked by increasing activism in the arena of violence against women in South Africa. Through the efforts of the women's movement, service providers, non-governmental organisations (NGOs) and the academic community, rape against women and children has been brought to the forefront of the public and political agenda. In this regard, the media has helped raise the levels of awareness concerning rape and violence against women in our society. Specifically, organizations such as People Opposing Women Abuse (POWA), Rape Crisis, the Centre for the Study of Violence and Reconciliation (CSVR), MOSAIC and Thuthuzela have played a significant role in increasing efforts to eradicate violence against women, by providing substantive information (research); and by securing appropriate services and legal reforms for survivors of rape and other gender-based violent acts. POWA, a registered non-profit Section 21 Company, was established in 1979 in response to the high levels of violence against women experienced in the community. POWA has thus effectively been operational for the past 23 years. POWA has a strong gender-sensitive stance and seeks to empower women through the processes of counselling, education, advocacy and lobbying. As a service provider, POWA has been successful in encouraging victims to report rape and other sexual crimes in the community, and many

women have utilised POWA's services for emotional and related support. The involvement of Rape Crisis across the country, underpinned by feminist ideologies, has played an important role in understanding the social location of violence against women.

As with POWA, Rape Crisis is one of many women's non-governmental organisations aimed at understanding rape as a crime of sexual violence and abuse of power. Rape Crisis' principles are based on a feminist understanding that women should be involved in their own healing and decision-making. Rape Crisis was established in Cape Town in 1976 and has since offered practical and emotional support to women and their families in Cape Town and the surrounding areas (e.g., Khayelitsha, Heideveld and Observatory). They have helped to raise awareness on rape and the effects thereof through educational work designed to bring about change. Their role in the community extends to lobbying parliament for change in legal and medical procedures to give better services to women complainants.

The development of several other formal non-governmental organisations such as the Trauma Clinic, (an affiliate of the CSVR in Johannesburg); and the Cape Town-based Centre for Survivors of Torture and Political Violence and many others in all the provinces of South Africa have contributed immensely in helping to define rape in our society. Overall, all these organizations have all helped facilitate early recognition of gender-based violence and appropriate intervention. In particular, these organizations have provided victims of rape and other violent crimes with an avenue through which they can be heard and receive assistance in terms of emotional and psychological support.

The efforts from the judicial system (through the Department of Justice and Constitutional Development) have also contributed significantly to addressing the issue of rape against women and children. These efforts encompass changes to legislation dealing with sexual offences; and the introduction of multi-disciplinary approaches, including specialised units and training programs in sectors that deal with rape cases. For example, with regard to legislation, the Sexual Offence Bill was proposed to parliament in 2002, unfortunately the

government has delayed passing the bill into law. This bill proposed a re-definition of rape from 'unlawful intercourse with a woman against her will' to any form of coercive sex. This means that in future a person can be charged with rape if they use a position of power or authority to force another person to have sex. Another new element of the Bill is the fact that it creates separate categories of offences. These include sexual violation and oral-genital sexual violation, which are viewed as being as serious as rape. While this new definition lags far behind international developments on the definition of rape, it is a profound shift in emphasis from the victims' actions, or failure to act, to the actions of the perpetrator. Given serious situation of sexual offences in South Africa, there is a need to see the Sexual Offence Bill being awarded priority status.

In addition, one of the primary strategies employed has been the implementation of courts specifically aimed at prosecution of sexual offenders. The first of such courts was established in Wynberg during 1993. Over several years, further courts were established in areas such as Bloemfontein (n= 2), Durban, Grahamstown, Johannesburg, Kimberley, Mdantsane, Parow, Port Elizabeth, Pretoria, Protea, Soweto (n= 4), Welkom, Butterworth, Thohoyandou, Umlazi and Vosloorus, amongst others.

Furthermore, the establishment of the multi-disciplinary care centres (which promote collaboration between police investigators, medical personnel, community volunteers, social workers and prosecutors) such as Thuthuzela in Cape Town's Manenberg township are some of the efforts made by the judicial system to address the issue of rape in the society. The Thuthuzela ("to comfort" in Xhosa) Project was started at the GF Jooste Hospital in 2000 by the National Prosecuting Authority, due to high incidence of rapes and sexual assaults on women in the townships of Manenberg, Heideveld, Nyanga, Guguletu and Khayelitsha, which are situated near the hospital. The aim of Thuthuzela is to improve the investigation and prosecution of rape cases as well as provide better services to rape survivors. A team of medical professionals treats women victims for sexually transmitted diseases and prevention of pregnancy (including HIV/AIDS infection). Since 2000, approximately 2 900 sexual assault

and rape victims have undergone treatment at the hospital (Cape Argus, June 28, 2005). In this regard, Thuthuzela has succeeded in significantly reducing at least one wait experienced by rape survivors, with no woman waiting more than half-an hour to be examined by medical personnel. A similar trend has been observed in other parts of the world. Organizations such as RESTORE, a victim-driven, community-based restorative justice program for selected sex crimes, have been established in the United States (Koss, Bachar, Hopkins, & Carlson, 2004). RESTORE is a collaboration of victim services, prosecutors, legal scholars, and public health professionals. RESTORE prepares survivors, responsible persons (offenders), and both parties' families and friends for face-to-face dialogue to identify the harm and develop a redress plan. The programme then monitors the offender's compliance for 12 months. All these collaborations are critical in building and sustaining programs aimed at assisting the rape survivors.

These efforts from a wide spectrum of professions have contributed immensely to our understanding of what constitutes rape and to increased knowledge and skill in this area. More importantly, these efforts have also provided insight into the magnitude of the problem in our society. Increasingly, concerted efforts are being made to further understand the prevalence of rape in our societies.

1.1.2 Empirical Data on Rape Prevalence

Rape has been identified as a significant problem for women around the world, as well as being a critical health and human rights issue. In the past 20 years, rape prevalence research estimates have substantiated the fact that sexual violence against women is pervasive in our society. Literature on rape prevalence has been documented mainly within two perspectives, namely; from understanding the prevalence rates at a specific point in time (e.g., in the past weeks, months, or a year), as well as over a period of time (e.g., historical view of life-time prevalence). The former refers to the proportion of the population that has been victimized at least once in a specified time period. The lifetime prevalence of rape victimization is defined as a proportion of the population that has ever been a rape victim. Given the fact that there is no one universal

measurement for rape prevalence, researchers have used different forms to depict prevalence levels. For example, the majority of studies report on actual numbers of rape victims in proportion to the population. Other studies have focused on reporting prevalence rates as a percentage of total forms of crime reported. It is important to note therefore that official statistics on prevalence rates are based on and reflect only reported crimes or convicted offences as well as information reported at counselling centres and / or hospitals. Further estimates are derived from unreported cases. The different measurements of rape prevalence hamper the comparability across studies and therefore it is important to note that

1.1.3 Prevalence of Rape in the WORLD

While rape is a universal phenomenon, the majority of studies on rape and violence stem from the United States of America (Hagemann-White, 2001). In this regard, various sources and mechanisms have been used to depict the extent of the problem within the society. Some studies report the levels of rape by looking at the number of cases relative to the proportion of the total population. In other studies rape prevalence has been reported as percentage of the total sample under investigation. Given the different measures of prevalence the various studies have been reported to reflect the extent of the problem of rape within the society. Therefore, despite the various forms of presentation of information on prevalence, they all illustrate the level and the magnitude of the problem within American society. For the most part, the prevalence of rape crimes in the USA are drawn from crime statistics as well as from non-governmental organisations.

The United States is one of the countries with the highest incidence of violent crimes globally. It is estimated that more than one in every five Americans will suffer from a serious physical or sexual assault during their lifetime (Koss, 1993). It is reported that approximately 51% of women in the United States experience one traumatic event during their lifetime (e.g., Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). This points to the fact that women are at greater risk of criminal

victimization, particularly rape. In this regard, reports on the prevalence rates in America have indicated relatively high levels of rape within this society. Specifically, Resnick, Acierno, Kilpatrick and Holmes (2005) reported that approximately 683 000 adult women are raped each year, and this only reflects the number of reported cases. Judging from previous reports of rape within this society, these (above) estimates for 2005 are significantly higher compared to previous years' findings. For example, the National Crime Victimization Survey (NCVS, Bureau of Justice Statistics) for the period between 1993 and 1998 indicates that of 8.1 million violent crimes in 1998, 333,000 of these were in the category of rapes/sexual assaults directed against women (Rennison, 1999). Similarly, in a separate study, the National Violence Against Women report (NVAW, Tjaden and Thoennes, 1998) produced estimates suggesting that 302, 100 adult women had been victims of rape or attempted rape within a year prior to the study. Other findings during this period also indicated significantly higher estimates. For example, Kilpatrick *et al*. (1997) reported a slightly higher number of cases for the year before 1998. It is estimated that approximately 3.9 million adult women over the age of 18 in the United States were either raped (1.1million women), or suffered aggravated assaulted (2.8 million) within a 2-year period.

Contrary to these relatively higher estimates, other studies reported relatively lower levels of rape prevalence in the few years before 1998. For example, of the 13.1 million crimes reported to the FBI's Uniform Crime Reports (UCR, 1997) throughout the United States, 96,120 of these were rapes.

While these estimates vary across the different data sources presented here, they provide evidence indicating that many violent crimes, particularly rape, are perpetrated against women. It is also important to understand that while conclusive comparisons cannot be drawn from these findings due to the different measures of prevalence, the results provide crucial evidence of the extent of the problem over a specific period within USA society.

Furthermore, as an indication of the pervasiveness of rape in the USA, there is also evidence suggesting higher lifetime prevalence rates of rape against

American women. These studies have estimated lifetime prevalence of rape to be between 14-25%, an estimated 12 million women (Koss 1993; Resnick, Kilpatrick, Dansky, Saunders and Best, 1993; Rozee & Koss, 2001). Providing further support for the relatively high lifetime prevalence rates, Tjaden and Thoennes (1998) estimated that 14.8% of adult women in the US had been raped sometime during their lives. In another study using data from the National Women's Study (NWS) Resnick *et al*., (1993) reported that 35.6% of adult women (an estimated 34.1 million women) had been victims of sexual assault and one out of eight adult women (12.7%) had been victims of completed rape.

While there have been relatively fewer cross-national studies on rape prevalence rates, the available research points to the fact that rape is a widespread phenomenon. In a review of cross-national studies on rape prevalence among college students and adult women, Koss, Heise and Russo (1994) found similar trends between the USA, UK and New Zealand. The results revealed that the United States, New Zealand and the United Kingdom had relatively higher prevalence rates of completed rapes (15.4%, 14.1% and 11.7% respectively), compared with Seoul and Canada (7.7% and 8.1% respectively) among sampled adult women. It was also estimated that combined lifetime prevalence of completed and attempted rape among college students across the countries studied is above 20% (Koss, Heise, & Russo, 1994). These results indicated that the combined lifetime prevalence of completed and attempted rape among college women is universally above 20%.

In a separate study, the 2000 International Crime Survey (Van Kesteren *et al*. (2000) compared prevalence data for sexual incidents (offensive sexual behaviour and sexual assault) in 17 industrialized countries and found that regional differences in the 12-month prevalence of sexual incidents against women ranged from 0.5% in Poland to 4.0% in Australia.

While there is little or no mention of South Africa in these cross-national studies, as with countries such as the USA, the epidemiology of rape against women in South Africa has become an issue of considerable importance to the

government, health workers and the community at large. Police reports and community-based surveys have been gathered to provide some insights into the prevalence levels of rape in our society.

1.1.4 Rape Prevalence in South Africa

In South Africa, there has been a great deal of furore around the national rape statistics, which are used to indicate the scale of the crisis. As with international estimates, data on the prevalence rate in South Africa is derived from a number of sources, primarily: police statistics, victim surveys and from a series of estimates by NGOs' working with survivors of violence. Since there is no one system by which prevalence rates are recorded, the statistics vary from one study to another. Therefore, the estimates reported in these studies serve to heighten the awareness of the scope of the problem of rape.

Over the past 10 years rape, one of the most conspicuous forms of violence against women, has reached epidemic proportions in South Africa. South Africa is reported to have the worst rape statistics in the world, and that is just for the reported cases (Eschuur, 2002; Hicks, 2002; Hirschowitz, Worku, & Orkin, 2000; Jewkes & Abrahams, 2002; Matthew and Abrahams 2001; Statistics South Africa, 2000). Compared to the United States, South African women are at greater risk of being raped, with 1 in 2 women likely to be raped during their lifetime (People Opposing Women Abuse, 2004). According to the Fourth United Nations Survey of Crime Trends and the Operation of the Criminal System's report (1990), South Africa had the second largest number (20,321) of reported rapes in 1990, compared to 3 391 in the UK, 2,928 in Venuezela and 486 in Denmark. By 1992 the number was reported to be at 24,700 annually (Vogelman & Lewis, 1993).

In the National Crime Statistics report for the period 1994-2002, rape was ranked fourth out of twenty as the most serious crime in South Africa. Rape was reported to have increased by 4.9% from 1994 to 2002. As evidence of the prevalence of rape in South Africa, in 1995, the Human Rights Watch report on domestic violence and rape, dubbed South Africa the 'rape capital of the world',

citing estimates that there were 35 rapes for every one reported to the police. Subsequently, the South African Police Service (SAPS) crime report revealed that rape was one of the few serious crimes that increased steadily by an average of 7% per year between 1994 and 1997. To provide further evidence of the scourge of rape within the South African community, both the SAPS and the Rape Crisis Centre indicated that approximately 49,289 rapes were reported in 1998, a significant increase from 1997. Over subsequent years, the SAPS reported a decline in the number of reported cases of rape. The SAPS annual estimates for 2002/2003 showed the number of rapes to have dropped from 121.8 per 100,000 of the population in 2001/02 to 115.3 in 2002/2003, the lowest rate since 1994/95. Similarly, the report on the 2003/2004 crime statistics indicates that cases of rape reported to police declined by 1,4% for the period under review to 113.7 per 100,000 of the population. In the recent SAPS report for 2004/2005, it is estimated that a total of 52,733 (118.3 per 100,000) cases of rape were reported ("Shock child sexual abuse figures", 2005; SAPS, 2005).

Scholars and health service providers have often challenged the figures relating to the prevalence of rape within the society. Other reports suggest the actual figures of rape prevalence are much higher, especially as many rapes go unreported. Rape Crisis, a victim support centre, puts the total at more than a million per year whereas the Centre for Study of Violence and Reconciliation (CSVR, 2004) more realistically estimates the total for the year 2004 at between 104 000 and 470 000. Unfortunately, the lack of consistency in terms of estimates inhibits us from drawing any meaningful conclusions and comparisons about the extent of rape prevalence in the society.

Unfortunately, and consistent with international research, a proportion of women are still unwilling to report their victimization, even on a confidential basis (Koss, 1993; Koss *et al*., 1994; Layman, Gidycz & Lynn, 1996). The SAPS estimates that only a fraction of actual cases are reported to the police with only one in 36 rapes estimated to be reported. Crovel and Burgess (1996) estimate that in the US just 16% to 32% of all sexual assaults are ever reported. The reluctance (due to various reasons) by women to open up and report these cases further

complicates the attempts to scientifically understand the magnitude of the problem within the society. Whatever the limitations, these figures provide evidence of the seriousness of rape in South Africa, which is generally undisputed. Therefore there is a need to find ways through which women can be encouraged to report cases of rape without fear and intimidation. But this also requires continued efforts to find meaningful measures to enable accurate tabulation of rape cases.

1.1.4.1 Rape in the Various South African Regions

The findings across the provinces and regions of South Africa provide specific prevalence rates for the regions at various periods. These appear to vary across the provinces over the different periods. In examining the spread of rape prevalence across the regions, the SAPS' report (2003) on crime statistics indicated that between 2000 and 2002 increased numbers of rapes were reported in Limpopo/Northern Province (7% increase), the Free State/Northern Cape (6.5% increase) and the Northwest/Mpumalanga (4.5% increase). Gauteng statistics for this period indicated a 0.2% increase over the same period whilst the Western Cape experienced a 1.8 % decline in the number of people who reported rape. These results suggest rape to have been more prevalent in Limpopo, the Free State and the Northwest over this period. The Gauteng and the Western provinces indicate some improvements in prevalence rates compared to earlier findings.

In 2001, the CSVR reported that in cities, the incidence of rape across all ages per capita was highest in Nelson Mandela Municipality (Port Elizabeth in the Eastern Cape) (1 in 559 people), and Johannesburg (1 in 607 people), with the lowest incidence in Cape Town (1 in 774 people) and Durban (1 in 808 people). This suggests that an individual is more likely to be raped in Nelson Mandela municipality than they are in Durban. However, earlier findings by the South African Demographic & Health Survey (SADHS, 1998), showed rape was much more common in the Western Cape (12.4% prevalence), Mpumalanga (10.5% prevalence) and Gauteng (9.6% prevalence). It is not possible to ascertain without further research whether the different prevalence rates reflect changes

over time in rape risk in some provinces, or are a result of differences in study methodology.

1.2 COMMENTARY

It is clear from the preceding paragraphs that rape against women is a virtually universal phenomenon, which is widespread and common in most societies and has many forms. In this regard, the studies reviewed in the previous paragraphs suggest that women across nations are at tremendous risk of sexual assault. Therefore, rape is a subject that cannot be ignored. Whilst definitions and measures of rape vary widely across cultural contexts, these have helped heighten the awareness on the scope of rape in the communities. Likewise, the available South African statistics of rape have helped us to understand the seriousness of the problem within this society. Given this background, there is a greater need to understand further the magnitude of rape within our society and more importantly, to understand the impact of rape victimization among African women. While rape has no racial boundaries, available reports point to increased numbers of rapes reported by African women compared to other racial groups in South Africa (Statistics South Africa, 1998; South African Police Services, 1998). High incidence of rape sexual assault on women in the black townships of Cape Town (specifically in Nyanga, Guguletu and Khayelitsha) as well as in Gauteng provinces' townships of Soweto, Sohanguve and Kagiso and in the Limpopo province have been reported. In this regard, the officials at Thuthuzela centre in Cape Town's Manenberg township report an increase (from an average of 40 sexual assault cases per month to 100) in the number of cases seen per month in the past five years since inception of the project in 2000. Therefore, recognizing the different forms of rape and the factors that possibly place women at more danger of sexual coercion are important aspects of our understanding of rape. Through research, several authors have articulated the various forms and common characteristics of rape including the context of rape experiences (e.g., stranger rape, acquaintance and gang rapes) against women within our society.

1.3 PATTERNS OF RAPE

1.3.1 ACQUAINTANCE/PARTNER RAPE

It has long been recognized that a sizable number of rapes do not involve strangers but rather persons who are acquainted with each other. While the majority of these are still underreported, research studies on rape reveal that women are more likely to be assaulted by men they know or are related to than by strangers. For example, in an earlier study, Rozèe (1993) reported that nearly all of the 35 non-industrial societies examined had higher (97%) levels of normative rape (that is, structured ways of sexually abusing women that did not violate social norms), including marital rape (40% of societies), compared to 63% of non-normative rape in these societies. In a similar context, Neville, Heppner, Oh, Spanierman and Clark's (2004) findings revealed that out of the total of 97 participants, a significant number of the female survivors of rape were either raped by an acquaintance (n=28), or by a friend (n=21), or boyfriend (n=17); thus suggesting that victims of rape were victimized by those closer to them rather than by strangers. Stranger rape accounted for the smallest number of (n=9) of perpetrators among Black and White college women survivors of rape. In a study designed to examine whether attributions of blame are associated with indicators of recovery from and cognitive adaptation to sexual assault, Ullman (1997) found that 87% of women in the sample were sexually assaulted by men who were known to them. Similarly, Layman, Gidycz and Lynn (1996) earlier found that 80% of those who acknowledged rape, reported that they were raped by an acquaintance or date or romantic acquaintance. Providing further evidence of the prevalence of intimate–partner rape, Koss *et al*. (1994) found that in the review of cross-national studies of college rapes, the majority of perpetrators were people known to the victims.

Consistent with these findings, European research on rape prevalence revealed sexual assault by the partner at approximately 3% prevalence, to be considerably more frequent than sexual assault by a stranger, at approximately 1% prevalence (Lobmann, Greve, Wetzels & Bosold, 2003). As with international findings, intimate-partner rape is among the most common forms of violence against South African women. POWA estimates that more than

40% of perpetrators are known to rape survivors. The National statistics supplied by the SAPS National Crime Information Centre (cited in Kottler, 1998). indicate that approximately 1% of rapes reported during 1996 and 1997 were perpetrated by husbands upon wives.

Consistent with this, Dunkle, Jewkes, Brown, McIntyre, Gray, and Harlow (2003) found that over two thirds of women studied (67%) reported emotional violence, 20.1% indicated sexual abuse and 50.4% experienced physical abuse by their intimate partners. Over half of the respondents in the study (55.5%) reported a lifetime of physical or sexual assault by a male partner. A national study on violence against women in Metropolitan South Africa (1999) revealed that 71% of women had experienced sexual abuse: attempts to kiss or touch followed by forced sexual intercourse. The results of this study also found that most victims knew the perpetrators, with partners accounting for 28% of the offenders, relatives comprising 21% and friends or acquaintances 14%. Further evidence of the pervasiveness of intimate-partner rape comes from Abrahams *et al*. (1999). In a random sample of 1394 male workers in municipalities in Cape Town, 15% of men reported having raped or attempted to rape a wife or girlfriend on one or more occasions during the ten years prior to the study. These official statistics on normative types of rape are merely the tip of the iceberg; a detailed review on female sexual violence by partners is indicated within the broader study of domestic violence.

Contrary to public opinion, women and children are much more likely to be assaulted in the home than outside it. Some very useful reviews on sexual, physical and psychological male-to-female (intimate partner) abuse have been compiled. This research suggests that sexual assault by the partner is considerably more frequent than sexual assault by strangers (Lobmann, Greve, Wetzels and Bosold (2003). Data from the U.S.A, the U.K., Australia and New Zealand all confirm that interpersonal violence (whether homicide, sexual assault or physical assault) is largely committed by those known to the victim. Familiar offenders in a broader sense include members of the same household, relatives, friends and colleagues. In South Africa, it is estimated that more than half of all rapes are committed by persons known to the survivor. The

stereotype that 'real' rape occurs between strangers in traditionally unsafe areas such as dark alleys is no longer relevant; as such experiences are also taking place in the apparent safety of women's homes within the bounds of intimate relationships. POWA's findings suggest that women are often raped in their homes and this involves date or acquaintance rape (POWA, 2005). One study of 159 women in the Western Cape found that 2% of the group had experienced marital rape and a further 12% sexual assault at the hands of their partners (Maconachie *et al*. 1994). In its annual report for 2004/2005, MOSAIC, the healing centre for abused women, reports that out of 28,685 counselling sessions conducted, 2,512 involved conventional counselling (i.e. substance abuse and sexual abuse), of which over 700 consisted of sessions with women raped by their husbands (n=382), boyfriends (n=297) and ex-partners (n=29). The women in these sessions also reported forced anal and oral sex, forced sex in front of children, their partners' refusal to use a condom and attempted rape. According to MOSAIC, the actual number of rape cases is probably higher than that reported, as the majority of their clients find it difficult to disclose this highly sensitive information to the counsellors.

1.3.2 STRANGER RAPE

In addition to the high levels of acquaintance- and partner- related rapes, other surveys have reported a number of women to have also experienced rape through victimization by strangers. Rape by strangers continues to be another form of victimization against women. In this regard, various studies have shown cases where women are raped by people unknown to them. For example, in a review of complete cases of rape from the Hillbrow medico-legal clinics, Martin (1992) found that 80% of attacks were by strangers. Subsequently, Martin (1999) also found that complete strangers perpetrated 55% of rapes recorded in the surveillance project of central and southern Johannesburg. Random incidences of rape by strangers continue to affect women's lives in our society.

1.3.3 GANG RAPE

Gang rape has become an increasingly common form of rape in South Africa. POWA reports that in South Africa a woman is more likely to be raped by 3 to 30 men than a single rapist (POWA, 2005). A study among rapists also

revealed that 44% of rapists had engaged in gang rape in South Africa (Vogelman, 1990), suggesting that almost half of all rapes may involve gangs. Existing research in this area suggests relatively high levels of gang rape against women. Of rape cases dealt with at Groote Schuur Hospital in Cape Town, 25% are estimated to involve gangs (Denny, 2003). Consistent with these findings, Martin (1999) also found that gang rapes featured more prominently in criminal cases of rape. These results suggested that in one third of cases there was more than one perpetrator. Similarly, Swart, Gilchrist, Butchard, Seedat and Martin (1999) also found gang rape prevalence in 27% of the cases they reviewed. While relatively high, the estimates of gang rape in South Africa are similar to US estimates that one in four rapes are gang rapes. With the increase of gang-related violence in South Africa, reports of violent sexual victimization of women have also been on the rise.

Within South Africa, the incidence of gang rapes can be traced back to the late '80s with the emergence of a group called the "Jackrollers". The hallmark practices of the Jackrollers were rape and abduction, car theft and bank robbery. This group mainly operated in the black townships. This type of rape was primarily conducted by male youths of all ages and was committed in the open, with no attempts by the rapists to conceal their identity. As such, the "jackrolling" exercise was an attempt by individual members of the gang to gain respect from the public or to earn respect within the gang (Vogelman & Lewis, 1993). More recently, several studies have confirmed the significant threat posed by gang rapes to women's freedom of movement (Vetten & Haffejee, 2005).

1.3.4 CHILD RAPE

In the context of social violence against women, South Africa has also witnessed an increased number of reported sexual abuse cases of children by older family and non-family members. Rape is the most frequently reported crime against South African children, accounting for one third of all serious offences against children reported between 1996 and 1998 (Hirschowitz, Worku & Orkin, 2000). Attesting to the high prevalence of infant rape in South Africa,

POWA reports that a child is raped every 24 minutes in South Africa. Van As, Withers, du Toit, Miller, and Rode (2001) roughly estimates that at least one girl in four and one boy in ten is raped by the time they reach the age of 18. Reports by a doctor at the Sinawe Centre on the Wild Coast in Port St Johns, that between 41% and 70% of the rape cases he had seen involved children ("The Cape Flats hospital's rape horror" (2005) illustrate the severity of the problem. The surge in child rape is also reflected in the increase in the reported cases over a period of time. According to the SAPS (1997) statistics, in 1996 there were a total of 13 859 reported extra-familial rapes of children below the age of 18. This figure showed an increase from the reported rates of 10,037 in 1995 and 7,559 in 1994. In 1998, the rate of rape and attempted rape of girls aged 0-17 years reported to police was 47.1 per 100,000 people (Jewkes, Levin, Mbananga & Bradshaw, 2002). In some areas the prevalence figures for child sexual abuse is estimated to be in excess of 50% (Madu & Peltzer, 2000, 2001).

In November 2001, South Africa awoke to the news of one of the most heinous acts of violence against an infant, that of the rape of nine-month old baby Tshepang (whose name means "have hope"). Six men in the Northern Cape allegedly raped the baby and subsequent DNA testing showed that the perpetrator was in fact the mother's ex-boyfriend. This particular vicious attack drew considerable public response. Subsequently, a number of other cases have been reported in the media, including recent cases of child sex rings across the country and an incident where a 3-year old girl was raped by a drunken man, while the mother was visiting a boyfriend ("Alarming rise in family rape and incest among Indians", 2005). The 'virgin sex cure myth' has been blamed for the increasing numbers of child rape in South African communities. Reviews on studies of rape have found that the belief that having sex with a virgin will cure one of HIV/AIDS is a contributing factor to the surge of rapes of young children. This belief appears to be widely held in Southern Africa (Kim, 2000; Leclerc-Madlala, 1997). There has been a lot of debate around this issue. In this regard, Leclerc-Madlala (1997) suggests that rapists may be targeting younger girls in the belief that, being less sexually active, they are also less likely to be HIV-positive. According to Leclerc-Madlala (1997) the myth is

located in the belief that a man will somehow get an infusion of 'clean blood' through intercourse with a virgin as virgins are believed to have special immunity against sexually transmitted diseases due to their dry vaginal tracts. While some researchers have challenged this theory, other research has provided evidence of the prevalence of this myth within South African communities. For example, Meel (2003) described a case study where a young girl was raped in the former Transkei by a man infected with HIV/AIDS as a way of curing himself. Similarly, a study by the University of South Africa in East London in the Eastern Cape found that 18% of 498 workers surveyed, believed that having sex with a virgin would cure HIV/AIDS. Given this context, the issues of sexual offences and the protection of children have been thrown into sharp focus by both the government and the non-governmental organizations focusing on the health and well-being of women and children.

The discussions in the preceding paragraphs have focused on different forms of rape in our society. These findings suggest that both normative (e.g., acquaintance rape including date and marital) and non-normative rapes (e.g., gang rape, child rape and stranger rape) are prevalent across societies. An integrated understanding of these forms is important in order to gain a multidimensional understanding of this phenomenon. The different forms of rape provide a context in which the focus can move beyond understanding to focus on the changes that are required to adequately protect the most vulnerable in our society, women and children. Therefore, consideration must be given to ensuring greater consistency in the reporting of prevalence rates across studies.

1.4 METHODICAL ISSUES ON RAPE PREVALENCE

The findings presented in the preceding paragraphs provide evidence that rape is neither rare nor a random phenomenon. The studies have helped reveal the alarming frequency of sexual coercion in women's lives and the various forms in which rape occurs across different societies. Despite substantial advances in our knowledge of rape and its prevalence, the research base is characterized by inconsistent findings across studies. The primary inconsistencies in the

knowledge base relate to the prevalence estimates of rape and sexual assault. Much of the variability in the estimated prevalence of rape has been attributed to methodological differences across studies (Bolen & Scannapieco, 1998; Fischer, Cullen & Turner, 2000; Hamby & Koss, 2003). In this regard, differences in definitions of rape and in sample composition appear to be the two major factors underlying the variability in rape prevalence estimates.

Definitional issues within rape research have been an area of contention for some time. Previous research has examined the effects of the operational definitions of sexual victimization, the number of questions about sexual victimization and the overall context of the questionnaire on obtained rates of sexual victimization. Bolen and Scannapieco (1998) found that definitions that are restricted to intercourse produced lower rates than those that include other forms of sexual assault. Bolen and Scannapieco also found that questionnaires with fewer than four questions on sexual victimization produced significantly lower rates than longer questionnaires. A similar pattern has been observed in studies on adult sexual assault (Boney-McCoy & Surgarman, 1998). Furthermore, the overall context of the questionnaire and the specificity of questions may also affect the disclosure of sexual victimization. Thus, restricted definitions of rape have the impact of reducing its apparent magnitude.

On the other hand, the lack of familiarity with legal terminology, such as sexual attack and sexual assault, has caused problems in usability with representative samples. In particular, results suggest that the use of the word ‘rape’ is reserved for labelling the stereotypical crime of stranger assault, thereby narrowing the scope of responses (Resnick *et al*, 1993). Given that rape is a widespread phenomenon, various definitions have profound implications for women’s health and well-being. Therefore, a common and universal definition of rape is imperative. In common with the international environment, South Africa is not immune to this problem. Clearly there seems to be some disagreement regarding how to translate the particular legal definition into an operative definition to be used in measuring rape. Given the diverse society with different languages, cultures, education and living environment, South

Africa is in a particularly difficult position when gathering statistics on rape prevalence. Methodological problems in wording questions related to sexual assault, as well as the difficulty experienced by participants in responding to such questions, have been recognized (Jewkes & Abrahams, 2002). Inconsistencies in definitions have effectively excluded a number of sexual acts that women experience as assaults of sexual nature. Consistent with the findings in international studies, Wood, Maforah and Jewkes (1998) found that adolescents in South Africa reserved the term 'rape' for the actions of strangers or groups of men and not for boyfriends or acquaintances.

Adding to this problem of the definition of rape is also the underreporting or failure to report rape by women. Failure to report rape compromises the efforts to build a common understanding of the phenomenon. Among reasons for failure to disclose and report rape, there is evidence suggesting that the failure of women to conceptualise the experience as rape, heightens the likelihood that they will not report their experiences (Layman, Gidycz & Lynn, 1996). Consistent with previous findings, Layman *et al*, (19962) found that only 27% of the women who had experiences that met the legal definition of rape conceptualised their assaults as such. This is especially true of marital, date and acquaintance rape victims. In 1998, only 9% of cases of rape reported to police resulted in convictions. POWA statistics released in 2004 revealed that for every 400 rapes reported during the past year, 17 became official legal cases and only one perpetrator was convicted. An investigation by the Institute of Security Studies ("ISS Monograph Series",1999) also found that in only 29% of cases did women tell anyone (and usually not the police) of their experience of violence. In the United States, Resnick, Acierno, Kilpatrick and Holmes (2005) report that only one in seven victims report the assault to police and receive forensic exams and other professional services. According to Rape Crisis, over the last 3 years only 50% of their clients reported the rape to the police. This is one of the most critical problems in the study of rape victimization. Rape is an emotive subject, which has significant implications for women's health. The relatively low levels of reported cases may impede women's ability to deal with rape's physical, psychological and social aftermath. In this regard it seems that cultural definitions and attitudes play an important

role in women's conceptualisation of their experiences. This appears to be influenced by socio-cultural beliefs that shape the likelihood of rape being reported.

Barriers to reporting to police may also include problems of physical access to police (Artz, 1999); fear of retaliation by the perpetrator; and fear of legal processes, including experiencing rudeness and poor treatment by the police (CIET Africa, 1998). It has also been suggested that many women do not go to the police because they anticipate that ultimately their action will not lead to the perpetrator being punished (Jewkes & Abrahams, 2002). The other strong disincentive to construe and report the experience as rape is related to fears that it may be met with a host of negative outcomes including disbelief, blame, unsupportive behaviours and adverse publicity (Kilpatrick, Edmunds & Seymour, 1992).

Furthermore, the sampling process in the prevalence estimates is also suggested to contribute to variation in the rape estimates. The over-representation of studies with college-age female victims of rape has precluded us from comparative analyses of findings across different studies (Kilpatrick & Acierno, 2003). As indicated by the findings reported in the preceding paragraphs, the prevalence estimates are highest for respondents aged 18-25 years and for those aged below 45. Even with random or representative sampling of the general population, the respondents appear more likely to be younger (Kilpatrick *et al*., 1987). While some studies have reported differences in age groups reporting rape, these are not sufficient to clearly explain the differences in prevalence between the surveys. The under-representation of older victim respondents in studies of rape prevalence limits our ability to clearly relate the occurrence of rape to age specifically. Thus, this points to the need for representative data of female victims of rape across different age groups. In approaching this, it is important that methods of sampling that facilitate disclosure of sexual assaults across all groups are employed, with due consideration of factors such as age, education and ethnicity. Such findings not only have implications for the assessment of victimization related effects in

clinical practice but also have relevance to research on both the incidence and effects of criminal victimization.

1.5 COMMENTARY

It is therefore clear that rape prevalence estimates are sensitive to both the relatively narrow legal definitions (including contradictory definitions) as well as sampling issues. Despite the series of the methodological challenges in measuring rape, the findings presented in the preceding paragraphs provide evidence of the widespread nature of rape in our societies. More importantly, the findings presented in the preceding paragraphs confirm that rape continues to be prevalent in communities worldwide. There is a general consensus that rape is the most pervasive form of violence against women. Therefore, given these findings it is important for us to understand the probable risk factors contributing to rape prevalence. In this regard, risk factors are not causes per se; rather they are at best statistical predictors of the probability of victimization occurring. Several studies have identified risk factors potentially relevant to assaultive violence such as rape. These include age, gender, race, socio-economic status and poverty.

1.6 RISK FACTORS CONTRIBUTING TO RAPE

1.6.1 GENDER AND AGE

Several studies have attempted to understand risk factors associated with victimization. Internationally, research on factors contributing to rape is somewhat limited and fragmented. Available research on these probable factors suggests that rape is influenced by factors operating at both individual and societal levels. It appears that risk of being sexually assaulted varies with gender, age and socio-economic status. Put simply, sexual violence is gendered. As such, gender is still the most powerful predictor of rape. Heise, Ellsberg, and Cottemoeller (1999) estimate that worldwide at least one woman in three has been subjected to some form of male violence.

At the individual level there is strong evidence that women are at much greater risk of sexual assault than men (Hoffman, 2002; Kessler *et al*., 1995; Kilpatrick, Acierno, Resnick, Saunders & Best, 1997). Although men are sometimes rape victims, in virtually all rape cases, the perpetrator is male. Providing evidence of the violent victimization of women, Hoffmann (2002) found that when comparing the rank order of the frequency at which different traumatic event categories occurred in male and female sub-samples, unwanted sexual activity was the least frequent (tenth ranked) category for the male sub-sample, but was ranked as the sixth most frequent category for the female sub-sample. Hoffman (2002) found that the incidence of unwanted sexual activity reported by female students included specific types of rape ranging from: date rape, unwanted fondling, victim exhibitionism to forced sexual relationships. Similarly, in another study Tjaden and Thoennes (1998) reported that, in the year prior to their study, approximately 302,100 American women had been victims of rape or attempted rape, compared to 92,700 adult men, thus suggesting that women are at increased risk of unwanted sexual assault compared to men. Gender equality is vocally advocated in South African society and the rights of women and children are protected by the constitution and legislation, yet women continue to be at greater risk of victimization than men.

Age has also been associated with the risk of being raped or sexually assaulted (Heiskanen & Piispa, 1998). In particular, belonging to a younger age group is perceived to increase the risk of rape (Acierno, Resnick, Kilpatrick, Saunders & Best, 1999). Kilpatrick and Acierno (2003) found that 62% of forcible rapes reported to the National Women's Survey occurred prior to age 18. Similarly, Tjaden and Thoennes (1998) found that 54% of women who reported rape on the National Violence Against Women Survey were victimized before the age of 18. This suggests that rape is a crime that is primarily committed against youth. In this regard, a Lovelife survey (2000) revealed that 39% of young women in South Africa between ages of 12 and 17 stated that they have been forced to have sex. In the same study, 33% said they were afraid of saying 'no' to sex, while 55% agreed with the statement "there are times I don't want to have sex but I do because my boyfriend insists on having sex" (Lovelife, 2000). In another study, the 12 to 19-year old respondents to the National Crime Survey

were also found to be at two to three times greater risk of crime than those of 20 years of age (Whitaker & Bastian, 1991). Similar trends have also been observed in cross-national studies of rape victims. Koss *et al* (1994) reported that across diverse continents and hemispheres, between one and two thirds of the victims of unwanted sex were 15 years and younger. A social contextual analysis of 172 rapes and attempted rapes that occurred in a large metropolitan area in the UK revealed that younger women (in the age range 15 to 24 years) were especially vulnerable to both stranger and acquaintance rapes (Muir & MacLeod, 2003).

In South Africa various reports suggest that children under the age of 18 are most vulnerable to sexual assaults and rape. According to the SAPS (2005), South African females aged between 12 and 17 years are the greatest risk category. The information coming from the South African Demographic & Health Surveys (SADHS, 1998) revealed that young women were much more commonly disclosed rape. The youngest age group (15-19 olds) were twice as likely to disclose being raped. According to the Crime Information Analysis Centre (CIAC, 2000), of the 52,550 cases of rape and attempted rape reported to the police in 2000, 21,438 (40.7%) involved minors under the age of 18 years. Similarly, of the cases referred to the police in 1998, 40.3% of victims were aged below 17 (SAPS, 1998). In a regional study analysing information about rapes reported to the medico-legal clinics in the central and north Johannesburg areas, Martin (1999) found that the great majority of rape survivors were young women -12.2% were 16 years old or younger; and 75% were aged between 17 and 35 years; and 12% were over 35 years old. A similar pattern emerged in the Gauteng region from a review of police dockets, which revealed that women aged between 19 and 20 were the most vulnerable to rape and attempted rape. In a recent survey among Cape Town high school students, King *et al*. (2004) found that the rape prevalence among adolescent high school students in Cape Town was 5.8% and that for attempted rape was 8.4%. Some other findings suggest the reported cases in the Western Cape could be more than 6,000 annually (“Rape surge makes streets no go zones”, 2005). The recent brutal sexual assault, rape and murder of a 15-year-old girl in the town of George outside Cape Town ("Rape surge makes streets no go

zones", 2005) confirm the prevalence of rape in this region. These studies confirm that children and youth are at greater risk of sexual assault. In this regard, the increased prevalence of alcohol and drugs in the community appears to be a primary reason that children suffer higher rates of sexual assault.

Additional research specifically suggests that younger adults are at significantly greater risk of being raped than middle-aged or older adults (Acierno, Resnick, Kilpatrick, Saunders & Best, 1999). For example, Muir and Macleod (2003) reported that while only 8% of the total 172 rape victims were in age group 40+, slightly more (17%) were in age group 25-39 years. George, Winfield and Blazer (1992) found that age was significantly related to the prevalence of sexual assault, since more than 7% of respondents aged 44 or younger reported being victims of sexual assault, compared to 3% of those between 45 and 64 years of age. Similarly, the SADHS (1998) reported that older women (45 years old and above) were less likely to report to have been forced or persuaded to have sex against their will. There could be several potential explanations of lower prevalence of reported interpersonal victimization among older women. On the basis of these findings it is possible to conclude that the risk of sexual assault or rape may diminish with increased age or alternatively, it may be that older adults simply do not report instances of rape victimization or may not place themselves in situations where rape is likely.

1.6.2 RACE

Race has also been suggested as a probable risk factor for rape victimization. Although racial or ethnic differences in rates of unwanted and forced sexual experiences are sometimes found, no clear pattern has emerged (Golding, 1996; Tjaden & Thoennes, 2002). The estimates of victimization rates associated with racial status have been mixed. Some American studies have concluded that Caucasians are at increased risk and others found both Caucasian and Black (African-American) women to be comparable. For example, Acierno *et al*. (1999) found that the minority status did not affect likelihood of being raped. Similarly, Norris (1992) found that while Caucasians

were more likely to be physically assaulted than African-Americans, they were at the same risk of sexual assault. In one study, Wyatt (1992) also found the prevalence rates for African-American women to be the same as for White women. More recently, Neville, Oh, Spanierman, Heppner and Clark (2004) also found that irrespective of race, White and Black college-age females were sexually assaulted at comparable rates. Consistent with these findings, Finkelhor (1994) suggests that sexual abuse cuts across social boundaries such as race and ethnicity. In the National Violence Against Women Survey, Tjaden and Thoennes (1998) found a prevalence rate of 18% for White women and 19% for African-American women. Contrary to these findings, the National Crime Victimization Survey (NCVS, 1995) found that annual rates of victimization (a composite variable including rape, sexual assault, robbery and physical assault) were greater in African-American women (4.5%) than in Caucasians (3.5%). Other studies have reported lower rates for African-American women than for White women (Wingwood & DiClemente, 1998). Kilpatrick, Alcierno, Resnick, Saunders and Best (1997) explained the discrepancies across these studies in part – they reported that women of minority status were at increased risk of assault after effects of age, education, assault history, and substance use were controlled. Tjaden and Thoennes (2000) argued that the lack of a clear pattern in these findings could be due to the relatively small numbers of minority groups in the study samples. Others have argued that the historical oppression of cultural groups such as Blacks may lead them to doubt the confidentiality of reports and thus become more reluctant to participate. Yet others have suggested that mistrust of police or researchers and language barriers could influence the cultural differences (Rozee & Koss, 2001).

Similarly, mixed results on the role of racial status in predicting rape have been found in the UK population. Muir and Macleod (2003) found that 84% of rape victims were White compared to only 10% of Afro-Caribbean ethnicity. South Africa has not been immune to such inconsistencies regarding the role of racial status in predicting rape. Of the 11,735 women interviewed on violence against women, African women represented slightly the largest proportion (66.7%) of women who reported being raped, followed by Coloured women (19.5%), White

women (11.4%) and Indian women (2.4%) (SADHS, 1998). By contrast, Jewkes, Levin, Mbananga, and Bradshaw (2002) found that White women and Coloured women reported rape more frequently than African women. Despite efforts to offer women survivors of rape access to police stations and counselling services, relatively few women appear to be comfortable with going through these channels for disclosure. Ironically, the majority of rape incidents and other personal crimes occur in the townships, areas that in apartheid South Africa (before 1994) were designated for Blacks, Coloureds and Indians.

1.6.3 POVERTY

Not surprisingly, other studies have suggested that socio economic conditions – such as living in poverty and being unemployed – can be correlated with higher rates of subsequent assault and are inversely related to risk of violent assault (Kilpatrick, Resnick, Saunders, & Best, 1998), thus indicating that women's socio-demographic variables may function as both potential risk factors and consequences of victimization. In this regard, Byrne, Resnick, Kilpatrick, Best and Saunders (1999) found that women living in poverty at the beginning of the study (Wave 1) were more likely to report a new physical or sexual assault than women not living in poverty at commencement (Wave 1- initial stage of the study). Moreover, they found that women who experienced a new assault were more likely to be unemployed than women who did not experience a new assault. Consistent with these findings, Bassuk, Weinreb, Buckner, Browne, Salomon and Bassuk (1996) also found high rates of sexual and physical assault in samples of poor and homeless women. Bassuk *et al.* (1996) found that 92% of the homeless women surveyed, reported a history of physical or sexual assault, whereas 82% of the sample of 216 non-homeless, low-income women reported a history of assault. This suggests that homelessness and living below the poverty level increases women's risk for sexual assault and rape victimization.

Within the South African context, poverty has also been suggested to increase the stakes for rape victimization. In particular, it is suggested that in township

and rural settings, where there are few opportunities for recreational development, women become primary targets for violent behaviours such as rape. In essence, reduced economic resources and the exposure to poverty heighten the probability that men will assert their power over women through violence. In a related study, Jewkes and Abrahams (2002) suggest that poverty increases the likelihood that women will engage in sex work or more subtle forms of transactional sex. The desperation for a job may also lead women to accept that sex may be the price of securing and retaining a job. In addition, other dimensions such as overcrowding; family disruption; weak social structures; high population concentrations and social norms are related to high levels of community violence within the South African context. Thus, poverty predisposes the victimization of women in the society.

1.6.4 SOCIAL INEQUALITIES AND ATTITUDES

Other attempts to account for the relatively high rates of rape prevalence against women suggest that the roots lie in the patriarchal nature of the society, where women and children are devalued and vulnerable (Vogelman & Eagle, 1991). South Africa is traditionally a male-dominated and patriarchal society where, for a long time, women have held limited power and authority and are frequently exploited. Jewkes and Abrahams (2002) argue that rape is a manifestation of male dominance over women and an assertion of that position. Thus, rape is suggested to form part of a strategy of control over women. Men are believed to assert this control through sexual coercion. This assertion of control takes the form of ritualised abduction, gang rape and the murder of young women as part of gang initiation (Wood, 2001). Support for this view is provided by Anderson's (2002) finding that 32% of South African high school males believe that forced sex with someone you know is not rape. On the other hand, there are those who maintain that the act of male sexual entitlement is reinforced by traditional institutions within the society such as customary marriage and lobola (dowry). Jewkes, Kekana, Ratsaka and Shrieber (1999) found that rural women in the Eastern Cape, Mpumalanga and Northern Cape understood that in their culture if a man had paid lobola for his wife it meant that he owned her, and that she had to have sex whenever he wanted it. This

suggests that the practice of lobola helps entrench the dominance of the husband in the relationship.

Rape and sexual coercion is considered to form part of the broader problem of gender-based violence, which is influenced by a general culture of violence within the society where violence is seen as a legitimate means to achieve goals (Jewkes & Abrahams 2002). Interestingly, while the South African government has committed itself to the abolition of gender inequality, the social reality is very different. Rape is essentially perceived as a way in which men assert their power and control over women.

Violent behaviours against women have also been correlated with culturally supported attitudes that encourage men to feel entitled to sexual access to women or to feel that they have a licence to carry out aggressive behaviours against women. Rape myths constitute a specific component of culturally supported attitudes that normalize rape in our society. These myths are false ideas about what rape is and include beliefs such as: men rape because they cannot control their sexual lust; women encourage rape; rapists are strangers; and women enjoy being raped. In summary, rape myths are a component of attitudes toward women, gender roles, sexual interactions and sexuality. These beliefs imply that women's sexuality is a commodity. There is a growing body of literature that documents the relationship between acceptance of rape myths and the prevalence of rape. Rape appears to be more common in societies that accept and believe in the rape myths. Rape myths serve to label women as in some way responsible for the rape and to view men's actions as excusable, thereby giving silent consent to their actions. The rape myths also reduce the likelihood of women reporting their rape, for fear of being blamed and stigmatised. Such myths further entrench negative beliefs about women and their role in the society. Moreover, they present a challenge in efforts to eradicate the surge of sexual assault and rape against the most vulnerable in our society, women.

1.6.5 VIOLENCE AND APARTHEID

There are also those who have linked the high levels of violence in South African society to the legacy of apartheid. A culture of violence has dominated South African society for decades. The levels of criminal and political violence have its roots in apartheid and the political struggle. Simpson (1991) argues that one of the consequences of decades of state-sponsored violence under apartheid and colonialism is that physical violence has, for many people, become a first resort to resolve conflict or to gain dominance or superiority. Thus, the use of sexual force to acquire the desired position of dominance becomes the default option and is normalised in such a violent society. Therefore the surge in the victimization of women and children by men may represent a displacement of aggression in which men feel able to reassert their power and dominance against the perceived weaker members of the society. Given this, the rape of women and children can be seen as an assertion of power and aggression.

There is also a view that the inadequacies in our criminal justice system create an environment where it is relatively easy to commit an offence of rape without severe consequences. Rape has one of the lowest conviction rates of all serious crimes in South Africa (Mail & Guardian, October 21-27, 2005; POWA, 2004). Despite the fact that South Africa has arguably the worlds' highest incidence of violence against women, yet there is an abysmal 7% conviction rate in cases of rape (Mail & Guardian, October 21-27, 2005). Offenders frequently evade arrest and conviction and continue to intimidate their victims and the victims' families. This also increases the likelihood of repeat rape.

1.7 COMMENTARY

The intent in the in this chapter was to discuss the prevalence rates as well as the scope and dimension of rape within society at large. Most importantly, the contributory risk factors in the context of rape were also discussed. The reviewed research reveals the alarming frequency of sexual coercion in women's lives across communities and in different societies. In addition, much of the evidence provided by these studies confirms the numerous factors that increase the risk of vulnerability and predispose women to rape.

Considering the prevalence of sexual assault in South Africa, much attention has been devoted to examining the characteristics of this crime, including the discriminating characteristics of both the rapist and the victim, explaining the possible motives and causes of rape, identifying the victim-offender relationship and identifying as a distinguishing feature whether the sexual violence occurred singularly or repeatedly (Dunkle *et al*., 2003; Jewkes *et al*., 1999; Matthew & Abrahams, 2001; Statistics South Africa, 2000). Despite the seriousness of rape against women as a societal problem and the likelihood that the problem may be getting worse (or is being reported more frequently), our understanding of the impact of rape and the coping response processes used by survivors of rape remains rudimentary. While organizations such as POWA, Rape Crisis, MOSAIC and others have been very effective in providing counselling, emotional support and crisis intervention to women, scant literature exists on the variables that may influence the recovery and coping processes of victims of rape. Nor is there information pertaining to the pathway to psychological well being among victims of rape. While the available research provides evidence of the magnitude of the problem, very few studies have examined the psychological reactions and the coping processes post-rape victimization, among South African women in particular black African women in urban and non-urban areas of the country. Much of the research and theory of victims' response to rape stems from western countries with socio-political and historical experiences that are distinctly different from those of women in developing countries. Understanding the experiences of survivors of violence should be the first step in making policy decisions that are aimed at promoting women's interests. It is for this reason that more substantive data needs to be procured on the effects of rape among South African female survivors and more specifically among African black women in both the urban and non-urban communities of South Africa. Many women in South Africa have been promoted to leadership positions (to an extent found in new other countries), nonetheless, too little has changed in the lives of women. Because of mass unemployment, most women still depend on social grants or family support. That in turn, leaves them open to abuse and violence. Despite the political and social changes in South Africa, it appears that traditional attitudes (due to

broader traditional norms) toward women have still not improved and more so in the rural areas of the country such as Limpopo. Given the pervasive patriarchal culture in African communities, an enquiry into this sample of women offers a unique opportunity and contributes significantly in understanding how surviors of rape in these communicates cope with rape victimization.

1.8 KEY AIMS OF THE PRESENT STUDY

In this regard, the present study sought to identify the mediators and moderators that translate rape into psychological distress. A moderator is defined as a variable that affects the relationship between two variables, thus changing the direction or magnitude of rape. Previous studies have shown that moderators of rape include characteristics of rape such as the use of force and the severity of attack or assault (Mechanic & Resnick, 2000) both of which are perceived to cause more damage to rape victims and exacerbate psychological distress. Specifically, the present study examined the role of assault severity (summed as an index of weapon presence, and physical violence) in predicting the degree of psychological distress experienced. Moreover, the study also explored the impact of the beliefs in rape myth ideologies in predicting the impact of rape among survivors. The role of the victim's personality characteristics in terms of intra-personal resources of hardiness construct (control, commitment and challenge) was investigated. The mediating variables, which include social cognitions and appraisals such as self-blame attributions, and the coping strategies (approach vs. avoidance) used by the survivors of rape, have been confirmed. The mediating or intervening variable is a link in a causal chain. For example, it has been suggested that victims' attributional styles, in particular self-blame, contribute to victims' psychological response. In this study we examined the role of attribution styles, particularly the internal self-blame attributions (e.g., behavioural and characterological) and external attribution, in predicting the victims' psychological reaction to rape. These factors have been incorporated into this study because of their potential influence in facilitating our understanding of the reactions and recovery processes following rape victimization. Therefore, contrary to the focus in previous studies wherein psychological impact was viewed as a consequence

of coping the present study seeks to understand the role of sexual assault severity, attributions, rape myths, personality and psychological impact in predicting coping among survivors of rape. Thus, coping becomes an outcome variable. Given the broad scope of the study, a considerable body of theory is presented to provide a conceptual backdrop.

1.9 STRUCTURE OF THE THESIS

The next chapter critically reviews contemporary literature on the psychological symptoms related to post-rape victimization. Within the literature review and theoretical arguments, the symptoms are discussed within the context of Posttraumatic Stress Disorder (PTSD) and the Impact of Event (IES). These include a discussion on the prevalence of rape-related PTSD and the time factor in response to rape, as well as a discussion of psychological responses to rape within the context of IES. In addition, the perceived problems with PTSD are addressed. Having covered the clinical psychological effects of rape victimization, other effects and or responses to rape are discussed within the framework of effects of rape victimization.

Following the extensive review of the literature on the psychological effects of rape victimization, the thesis progresses to a discussion on contributory factors relating to the persistence and non-existence of symptoms among victims. In particular, the impact of severity of sexual assault in the development and maintenance of psychological reactions is discussed. The role of personality in increasing the vulnerability to PTSD is also discussed. Other factors implicated as influential in the development of PTSD (e.g., prior victimization, assault severity, socio-economic and social interaction factors) are also discussed. In addition, a review of literature on the prevalence and use of rape myth beliefs is included. The rape myth belief theory is discussed in the context of understanding victims' internalisation of such beliefs and the influential role such beliefs may have on victims' psychological response to rape victimization.

The other strand of the theoretical presentation involves a review of the studies on the theoretical framework of attribution and its role in understanding rape

survivors' psychological responses and coping. Specifically, this includes a discussion on the process through which people make sense of their world (as per the social cognition theory).

In the last component of the literature review, we elaborate on the theory of coping with victimization and the recovery process of rape survivors. In this regard, there is a central focus on styles of coping as well as factors that affect coping with rape victimization.

After the extensive review of the theories relating to the research, the thesis progresses to a discussion of the research question, the method of the study employed and the results of the findings. Since the study entailed testing a model, this chapter provides steps taken in the analysis of the interplay of the variables. The results chapter provides a summary of key relationships that emerged in the Structural Equation Model analyses.

Finally, a comprehensive discussion of the data is also provided. Primarily, the discussion provides some in-depth discussions on the interpretation of the findings in the study and a critical evaluation of the research. Following this, concerns and limitations of the study are explicitly addressed. The thesis concludes with recommendations for future studies in the area of rape victimization in South Africa.

CHAPTER 2

PSYCHOLOGICAL EFFECTS OF RAPE ON SURVIVORS

2.1 POST-TRAUMATIC STRESS DISORDER (PTSD)

This chapter shifts the focus from considering rape prevalence and the contributing factors to specific details on the impact of rape victimization and in-depth findings on the trauma of rape. The material on the impact of rape is discussed within the broader clinical premises, primarily post-traumatic stress disorder (PTSD).

In addition to studying the patterns and forms of victimization, research in victimology has also sought to identify broader trends in victim responses in terms of the impact of victimization. In this regard, clinical work with victims has revealed a clear relationship between exposure to interpersonal violence and PTSD (Resnick, Kilpatrick, Dansky, Saunders & Best, 1993). These studies suggest that interpersonal violence (e.g., physical assault, robbery and rape) is more likely to increase the risk of PTSD and prolonged pathological response relative to other potentially traumatic events such as disasters and accidents.

Given the relatively high prevalence rates of rape against women, it is important for us to understand the effects of sexual assault on women as well the factors associated with post-assault adjustment. Surveys have sought to identify trends in victim responses in terms of the impact of rape victimization. In this regard numerous clinical epidemiological studies have found that women who have been sexually assaulted, may develop multiple psychological symptoms and several psychiatric disorders (Saunders, Vileponteaux, Lipovsky, Kilpatrick & Veronen, 1992). Specifically, rape victims may sustain a wide range of emotional, cognitive and behavioural outcomes. Shock, intense fear, numbness, confusion, extreme helplessness and or disbelief are likely to follow the experience of rape victimization. The diagnosis of PTSD has provided a conceptualisation of many of the psychological sequelae for rape. Survivors of

rape are found to be more likely to be diagnosed with PTSD, in particular a prolonged pathological response.

Since its inclusion in the Diagnostic and Statistical Manual of Mental Disorders III (DSM-III) in 1980, PTSD has been the subject of extensive empirical study. PTSD is conceptualised as a normal response to overwhelming psychic trauma. It occurs when: (a) an individual experiences a traumatic event; (b) reacts with intense fear, helplessness or horror, and (c) develops particular symptoms that persist for at least a month (American Psychiatric Association - APAF, 2000). Within this definition, Asumndson, Frambach, McQuaiald, Pedrelli, Lenox and Stein (2000) identify four basic dimensions of PTSD symptoms:Re-experiencing (e.g., nightmares and flashbacks);Avoidance (e.g., efforts to avoid thinking about the trauma); Numbing of general responsiveness (e.g., restricted range of affect); and Hyperarousal (e.g., exaggerated startle response). However, while the World Health Organization (WHO) system acknowledges that avoidance and emotional detachment may be present (consistent with the APA), it does not consider these essential for the diagnosis of PTSD. To meet the criteria for PTSD, the individuals must first answer yes to the necessary gate question (Criterion A) which requires that an individual has experienced an event that is perceived as highly threatening and which may include threat to life or physical integrity; or actual injury to that individual; or serious harm or death of a loved one. In this regard, the diagnosis of PTSD requires that onset be initiated by a negative life event. Therefore, the event is considered capable of producing PTSD if it creates a threat to the persons' physical integrity and produces a reaction of shock and horror. In essence the diagnosis rests on the verification of exposure to a specific kind of stressor, which has a specific impact on the sufferer.

Specifically, the symptoms of PTSD include a state of increased anxiety with panic attacks, exaggerated startle responses, phobia anxieties, avoidance behaviour, and nightmares. The WHO (1993) has also emphasized repetitive, intrusive recollection or re-enactment of the event in memories, daytime imagery, or dreams as diagnostic criteria for PTSD. Much of the initial research related to diagnosis was supported by the United States' Department

of Veterans Affairs in examining the adjustment of veterans who served in the Vietnam War and other war zones (Green, 1994). Subsequently, those at risk for PTSD now include political refugees, torture victims, combat veterans, and survivors of rape, assault, domestic violence, war and natural disasters. These events have been defined as typical examples of criterion A. In recent years the PTSD conceptualisation has been the primary driving measurement used in research on responses to violence against women. Rape victimization appears to elevate the risk of PTSD development. In this regard, PTSD has been implicated in a number of investigations on the psychopathology of rape victims.

2.1.1 RAPE AND PTSD

Despite the fact that responses to rape have unique and specific components, they also fit into the larger group of post-traumatic response. Rape has been identified as one of many forms of trauma that increase the risk of developing the psychological sequelae of PTSD and development of a range of negative mental health and physical outcomes (Kilpatrick & Acierno, 2003; Resnick, Kilpatrick, Dansky, Saunders & Best, 1993; Rothbaum, Foa, Riggs, Murdock & Walsh, 1992,). This form of victimization is associated with fear, anxiety, depression, suicide, PTSD and physical health problems (Golding, 1994; Kilpatrick, Edmunds & Seymour, 1992; Resick, 1993). Rape is a trauma that has been specifically acknowledged by the DSM-IV as a potential precipitant of PTSD.

In the early research on post-trauma syndrome, Burgess and Holmstrom (1979) noted that many rape victims experienced similar reactions following their assault. Burgess and Holmstrom (1979) described the rape trauma syndrome as a two-phase reaction, consisting of an acute phase and a re-organization phase. The acute phase was characterized by disorganization lasting from several hours to several weeks and including both impact reactions (such as shock and disbelief) and somatic reactions, including physical trauma. The re-organization phase was described as a long-term process consisting of active lifestyle changes (such as changing place of residence) and long-term chronic disturbances (such as nightmares and fears). Since then, substantive research

on the psychological impacts of rape has confirmed the occurrence of these psychological reactions among victims of rape.

In this regard, the predominant psychological reactions to rape have been suggested to include feelings of helplessness, clinically significant fear, depression, re-experiencing of the trauma and anxious arousal (Foa & Riggs, 1995); low mood, increased state of anxiety with panic attacks and tension (Petrak, Doyle & Williams, 1997); and sexual dysfunctions (Feldman-Summers, 1979, Kilpatrick & Veronen, 1984; Resick, 1986); as well as exaggerated startle response, phobic anxieties (e.g., fear of darkness) and avoidance behaviour (Lobmann, Greve, Wetzels & Bosold, 2003). Many of the symptoms that emerge following rape are included among the criteria for PTSD.

Survivors of sexual assault are suggested to be more likely to meet the diagnostic criteria for PTSD than are victims of other trauma (Frazier, Byrne, Glaser, Hurliman, Iwan & Scales, 1997; Kessler *et al.* 1995). Providing support for this perception, reports on the epidemiology of PTSD in the Australian community reveal that for men and women, rape and sexual molestation are the traumatic events most likely to be associated with PTSD (Creamer, Burgess, & McFarlane, 2001). This suggests that something about rape itself contributes to PTSD (Gilboa-Schechtman & Foa, 2001; Weaver, Kilpatrick, Resnick, Best & Saunders, 1997; Zoellner, Foa & Brigidi, 1999). As evidence of this, Norris (1992) found that rape is more likely to induce PTSD than a range of other traumatic events affecting civilians, including robbery, tragic death of a close friend or family member, or natural disaster. In examining the patterns of recovery among sexual and nonsexual assaults, Gilboa-Schechtman and Foa (2001) also found rape to have a greater impact than non-sexual assault on the magnitude of initial peak reactions. They found that when compared to victims of non-sexual assault, sexual assault victims reported greater reactions on all three measures of psychopathology – Beck Depression Inventory (BDI), the State Anxiety Inventory (STAI-State) and PTSD measures – both on initial assessment and at three months post-assault. They also found that the recovery of sexual assault victims for the six-month period was slower than that of non-sexual assault victims on two measures of psychopathology. Similarly,

Zoellner *et al.* (1999) found that the type of assault, in particular sexual assault, was related to severe PTSD symptoms and depression compared to non-sexual assault victims. These results are consistent with the hypothesis that the severity of the assault or trauma, in particular rape, would give rise to a more severe reaction than would non-sexual assault (Banyard, Williams & Siegel, 2001).

In South Africa PTSD has largely been used to draw attention to the plight of victims, in particular the psychological damage suffered as a result of victimization. Specifically, a number of studies on the presence of traumatic stress have been conducted amongst political prisoners, ex-detainees and children living in townships affected by political violence (Dawes & Tredoux, 1989; Rock, 1997). These studies have confirmed that relative to other potentially traumatic events, exposure to such high levels of violence puts victims at risk of developing PTSD. In line with international reports, these findings have revealed an association between rape victimization and psychological distress. In the following sections, various studies regarding the psychopathological consequences of rape victimization are explored.

2.1.2 PTSD PREVALENCE AMONG RAPE VICTIMS

Even though PTSD did not become an official psychiatric disorder until 1980, it is generally estimated to affect 10.4% of American women and 5.4% of American men at some point in their lives (Kessler, Sonnega, Bromet, Hughes & Nelson, 1995). To date, lifetime prevalence rates of PTSD after rape are estimated to vary from 30% to 65% for women who have experienced a completed rape (Resnick *et al*. 1993; Rothbaum *et al*. 1992). For example, Dickinson, de Gruy, Dickinson and Candib (1998) found that 56% of sexually abused and assaulted patients suffered from PTSD compared to 30% of non-victimized women. In this regard, Kilpatrick *et al* (1992) also reported that 31% of all rape survivors developed PTSD at some point during their lifetimes and that they were 6.2 times more likely to suffer from PTSD than women who had never been victims. Empirical studies on the psychological reactions to rape suggest that the majority of rape victims meet the criteria for PTSD within weeks

of experiencing rape (Faravelli, Giugni, Salvatori, & Ricca, 2004; Kilpatrick, Edmunds, & Seymour, 1992; Riggs, Rothbaum, & Foa, 1995). For example, Rothbaum *et al*. (1992) found that on average, within 12 days following assault, 94% of rape victims met PTSD symptom criteria. Rothbaum *et al*. (1992) found that the PTSD victims were more symptomatic and reported greater rape-related distress, intrusion and state anxiety compared to the victims without PTSD. Consistent with previous findings, Rothbaum *et al*. (1992) found an incidence rate of 60-65% of PTSD symptoms one month post-assault among rape victims, which dropped to 47% by assessment 12 at three months post-assault. Specifically, PTSD victims reported greater severity on rape-related fear, distress and depression compared to non-PTSD victims.

In studying the effects of type of trauma among female victims of sexual or a nonsexual assault, Gilboa-Schechtman and Foa (2001) also found that at the time of initial assessment of the twelve week assessment period, the magnitude of the emotional reaction to sexual assault was larger than the magnitude of the emotional reaction to non-sexual assault on the three measures of psychopathology (i.e., Beck Depression Inventory, the State Anxiety Inventory and the PTSD). Similarly, Zoellner *et al.* (1999) found that sexual assault was associated with more severe PTSD symptoms and depression within the initial two weeks post-assault compared to non-sexual assaults. Zoellner *et al*. (1999) found that 76% of the victims met the criteria for PTSD within the initial assessment of 2 weeks post-assault. However, at three months post-assault, victims showed improvement as the number of participants who met PTSD criteria had decreased to 34%. In a Finnish study, Heiskanen and Piispa (1998) found that of all women who had been victims of sexual harassment, 62% said the harassment had some consequences for them. The most common consequences were emotional, such as fear, shame, and feelings of guilt, hatred and depression. While Santello and Leitenberg (1993) were not able to conclusively indicate if the symptoms were experienced concurrently and for at least a month, they found that 59% of the respondents who had experienced sexual aggression by an acquaintance endorsed the requisite number of symptoms in each category of the DSM-III-R. This suggests that they may have suffered from PTSD at some time since the sexual aggression.

Within the PTSD symptoms, intrusive thoughts, flashbacks and nightmares (Herman, 1992; Joseph, Williams, & Yule, 1995) have been suggested as common symptoms of PTSD among rape victims. Rothbaum *et al*. (1992) found that compared to non-PTSD victims, PTSD victims indicated greater severity on intrusion and state anxiety throughout the assessment period. Specifically, they found that trauma-related intrusive thoughts and images were evident among victims from the onset of the study. They found that of the thirteen victims with intrusion scores at assessment one, three developed PTSD at assessment twelve at 3 months post-assault. In a study designed to record the number of traumatic events and the number of trauma symptoms associated with specific traumatic events, Hoffman (2002) found that all students experiencing traumatic events reported intrusive thoughts and avoidant behaviour after unwanted sexual assault. Specifically, Hoffman (2002) found that 100% of students who had experienced unwanted sexual activity reported presence of intrusive thoughts, 58% reported nightmares and 100% reported symptoms of avoidant behaviour. In addition, other studies have also reported the symptomatology of avoidance being predominant in cases of rape. Gilboa-Schechtman and Foa (2001) examined PTSD severity at six months as a function of delayed (1–2 months) versus immediate (within two weeks) reaction in arousal, avoidance and re-experience. The results indicated an effect of timing of avoidance and arousal but not re-experiencing components. They found that PTSD at 6 months was significantly prevalent for individuals with delayed versus immediate avoidance reactions. The findings suggested that victims with delayed reaction to assault experienced more avoidant behaviours compared to those who showed reactions to assault within two weeks. Overall, rape increases the likelihood for development of PTSD symptomatology (intrusion, avoidance and hyperarousal) immediately after victimization.

The research on rape victimization suggests that the psychological consequences of rape victimization persist over extended periods (beyond two weeks) and affect the victims in many domains of psychological and social functioning (Riggs *et al.* 1995; Valentiner *et al*. 1996). Thus, a prolonged pathological response to rape has been observed across various studies. In

relation to this, Valentiner, Foa, Riggs, and Gershuny (1996) found that despite the overall decrease in PTSD symptoms within two weeks after the assault, one third of the victims met the criteria for PTSD three months after the assault. In a study comparing women who were victims of rape (as decided by a court of law) and non-raped women, Faravelli *et al*. (2004) found that significantly greater (95%) prevalence of PTSD was found among raped women compared to non-rape victims four to nine months after the rape. They found that anxiety disorders were more prevalent in the raped group. Similarly, a study of representatively sampled rape victims by Rothbaum *et al.* (1992) showed that while the majority (94%) of rape victims had symptoms severe enough to meet symptom criteria for PTSD; approximately one-half of the sample remained post-traumatic stress disordered three to four months after the trauma. Specifically, rape victims reported more severe rape-related distress, trauma-related intrusive thoughts and images, anxiety, and depression. In particular, they found that the frequency of most symptoms was significantly higher for the PTSD group than the non-PTSD group with three exceptions: hyperalertness/startle, avoidance, and guilt. Hyperalertness and avoidance was reported to be quite high for both the PTSD and non-PTSD groups whilst guilt was infrequent in both groups. This suggests that anxiety symptoms may persist longer even if there is a reduction of other symptoms.

In a study of prevalence of sexual assault among urban (Los Angeles) and rural (North Carolina) southern women, George, Winfield, and Blazer (1992) found that the main immediate psychological reactions to rape included feelings of anger (92%), feelings of tension/anxiety (68%), feelings of guilt (54%) and lessened interest in sexual activities (95%). While approximately 30% of the victims later reported no present continuation of any of the immediate reactions to sexual assault experience, George *et al.* (1992) found that in general, symptoms including feelings of anger, lowered self-esteem, feelings of guilt, less interest in sexual activity, dysphoric mood and feelings of tension or anxiety were a common continuing symptom. Similarly, in one study of primary care patients, women who had been raped were reported to have been three times more likely to meet criteria for lifetime major depression (Dickinson *et al*, 1999). Gilboa-Schecthtman and Foa (2001) found that at three months post-assault,

victims of sexual assault exhibited a more severe reaction on two out of the three measures of psychopathology (i.e. BDI, STAI and PTSD). Furthermore, they found that the recovery of sexual assault victims for the 6-month period was slower than that of nonsexual assault victims on two of the three measures.

In addition, other studies that have assessed rape victims over time have found continued problems with fear, mood states and depression for duration of 18 to 3 years (Kilpatrick & Veronen, 1983; Resick *et al.* 1988). Other studies have found rape victims to have long-term problems in social adjustment and sexual disorders (Becker, Abel & Skinner, 1979, 1986; Kilpatrick *et al*. 1985; Kilpatrick *et al*, 1987) as well as other rape-related PTSD symptoms (Rothbaum, Foa, Murdock, Riggs & Walsh, 1992; Resick, 1993) long after the assault. Frazier, Conlon, and Glaser (2001) found that at 12 months post-assault, the average correlation between positive changes and distress was lower compared with that for negative change and distress. This suggests continued post-traumatic distress over a year after the rape. Such persistence has also been observed in some international studies. An investigation of the psychological disorders following rape and the course of PTSD among 73 rape victims in France revealed that after over 1 year following rape, early disorders predicting PTSD included somatoform and dissociative disorders, agoraphobia and other specific phobias as well as depressive and gender-identity disorders (Darves-Bornoz, Lepine, Choquet, Berger, Degiovanni & Gaillard, 1998). In addition, Kessler *et al.* (1995) reported that more than one third of those diagnosed with PTSD still had it even five years later, thus, suggesting that rape has a long-term impact on survivors. Therefore, rape may be hypothesized to have more long-lasting pervasive negative effects on survivors than other traumas. In addition, these findings provide evidence of the fact that the prevalence of trauma and exposure and the resultant PTSD is a monumental problem for women survivors of rape.

Although these studies represent important developments in the literature on rape psychopathology, the extent to which the findings can be generalized to the South African national population of female rape victims as a whole is unclear. In particular, limited information exists about the prevalence of PTSD

among samples of African female victims of rape. The extent to which rape increases the risk of psychological distress remains understudied. This therefore underscores the need for national probability estimates to strengthen confidence in the study of the impact of rape victimization. In this regard, research endeavours attempting to assess the psychological impact of rape on women remain a top priority.

2.1.3 IMPACT OF EVENT

Research on PTSD is extensive and one of most commonly used instruments is the Impact of Event Scale (IES) developed by Horowitz, Wilner and Alvarez (1979). The IES-R is the first scale developed to assess post-trauma psychopathology (Horowitz, Wilner, & Alvarez, 1979). This measurement was derived from Horowitz's notion that two classes of symptoms, namely, intrusion and avoidance, constitute the core post-trauma reactions. In a revised version, Weiss and Marmar (1997) added seven hyperarousal symptoms to achieve a total 22- item instrument. Avoidance symptoms are characterized by psychic numbing as well as avoidant thinking and behaviour. Distressing thoughts, feelings and nightmares characterize intrusion symptoms whereas hyperarousal symptoms include anger, irritability, jumpiness and psycho-physiological arousal signs upon exposure to reminders of rape.

The emotional reactions or symptoms have been measured by the various IES-R scales widely used and observed in other stressful life events and trauma populations such as war crimes, natural disasters and in crimes of robbery wherein victims report increased arousal symptoms and intrusive images, thoughts and feelings (Dyregrov, Giestad & Raundalan, 2002; Hodgkinson & Joseph, 1995; Koopman, Classen & Spiegel, 1994).

While the three classes of reactions do not directly correspond to the DSM-III or DSM IV symptoms, they do specify the presence or absence of certain symptoms parallel to the phenomena identified within the PTSD, namely, re-experiencing, avoidance and arousal (APA, 1994; Foa, Cashman, Jaycox, &

Perry, 1997). In a study on the relationship between PTSD and other measures of psychopathology, Foa *et al.* (1997) found that the re-experiencing score correlated more highly with IES-R's Intrusion score than did the Avoidance score. The PTSD's Avoidance score also correlated more highly with the IES-R's Avoidance score. In earlier research on post-rape syndrome among 95 female victims of rape or attempted rape, Rothbaum *et al*. (1992) reported a strong relationship between the PSS (items used to diagnose PTSD) the IES-R's intrusion sub-scale and the avoidance subscale of the IES-R. They found that victims' scores on the IES-R (avoidance and intrusion) accurately identified over two-thirds of the victims who later met criteria for PTSD. This confirms previous findings suggesting that victims of rape often exhibit higher levels of avoidance and intrusion symptoms compared to non-victims and victims of a variety of other crimes (Kilpatrick *et al*., 1987; Resick, 1988). Rothbaum *et al*. (1992) examined the victims' IES-R scores to develop rules for identifying rape victims likely to develop PTSD. They found that ten of the fourteen victims with higher intrusion scores were later diagnosed with PTSD after three months. This translated into an increased percentage (89.6%) of accurate identification of the victims who were diagnosed with PTSD. Although IES-R does not adequately provide the diagnosis of the disorder, the measure provides the means to quantify symptom severity.

2.1.4 COMMENTARY ON PTSD

It is evident from these findings that a vast majority of rape victims exhibit a pattern of reactions that is consistent with the symptom criteria for PTSD. In spite of this, the PTSD conceptualisation has been severely critiqued. Such criticism ranges from relevance to the comprehensiveness of the PTSD. In this regard, the critiques have some legitimate questions about the validity of applying a diagnostic entity that was originally formulated on the basis of soldiers' reactions to combat (Saigh & Bremmer, 1999). In this regard, the traditional notions of trauma are probably too narrow to accurately capture the complexities of women's experience of sexual violence. To the extent that PTSD might explain the impact of rape victimization, it nevertheless limits the

understanding of victims' overall response to rape. Hence, the use of a single construct to describe the responses to such a horrific experience has been considered to be inappropriate.

The other major criticism pertains to the limitation of attempting to encompass the scope of human distress under the post-traumatic stress and more specifically the medicalization of PTSD. Latin-American feminist psychologists (Becker, Lira, Castillo, Ganez & Kovalskys, 1990) argue that the PTSD diagnosis is a conceptualisation rooted in the medical model that ignores the gendered, structural, and social aspects of male violence against women. As such, many advocates of this criticism feel that interventions aimed solely at addressing survivors' symptoms, turn their efforts inward rather than directing them toward social change. To some extent, such a conceptualisation and subsequent medicalization of individuals' response may result in minimizing the responsibility of perpetrators, and may constrain the broader characterization of psychological response to rape victimization.

PTSD has also been criticised for overemphasising individual responses to male violence. It is argued that PTSD deflects attention from traumatized social relations and social systems by overemphasizing the individual responses to male violence. The current measurement of PTSD fails to take into account some characteristics of the victim (e.g., ethnicity and class) that may shape the victims' response to rape. In this regard, Summerfield (1995) argues for recognition of the fact that the post-traumatic stress diagnosis is culture bound and based on the Westernised, individualised and medical paradigm. Thus, one of the shortcomings of the conceptual model of PTSD is the failure of the PTSD to take cognisance of the cultural context in the process of rape. PTSD gives little attention to detailing the socio-cultural context, which can have a powerful influence on the individual's intrapsychic mechanisms. This concern is particularly relevant in the South African context. Despite the relevance of these aspects of criticism on PTSD, the study of effects of rape victimization remains focused on the medical aspect of trauma. The integration and role of socio-cultural aspects remain understudied.

In the South African context, the criticism of the diagnosis has also been focused on the medicalization of traumatic stress (Eagle, 2002). Eagle (2002) argues that while the medical categorisation offers legitimisation of the experience of victims, this is done in a constrained form. As such, this medicalization requires that experience of trauma be classified into indicators, which then renders certain presentations as legitimate, and others outside of the norm. According to Eagle, this points to the tension between doing justice to describing the unique shocking dimensions of trauma exposure and at the same time pursuing the scientific goals of diagnostic refinement. Furthermore, Eagle (2002) argues that within South Africa PTSD has been drawn up to serve explicitly political rather than purely clinical agendas (Eagle, 2002). For example, during the 1970's and 1980's, psychological theory was drawn upon to mitigate culpability of people who were charged with crimes as part of mass action. In examination of the politico-legal employment of PTSD diagnosis in South Africa, Eagle suggests that the use of PTSD has been to explain a "normal" purposeful response to a context as opposed to invoking the diagnosis to explain actions as "insane" or out of character and irrational. Eagle argues that the scope of presentations classifiable as PTSD had been tampered with by the government's role (directly and indirectly) in inflicting psychological damage on individuals in the service of their own ends. Specifically, PTSD has been employed as a defence in the interest of both the victims and victimizers. As such, the employment of PTSD as a diagnostic justification for the acting out of violence is perceived to have served anti-social ends (Eagle, 2002), thus blurring the boundaries between victims and perpetrators. In this regard, it seems that the employment of the diagnosis in South Africa has become the refuge of torturers and murderers.

Overall, the perception is that these symptoms, emphasized by the application, may legitimate one socio-cultural manifestation of distress while excluding others. The debate therefore has hinged on whether survivors are well served by having their responses to crime individualized and pathologized.

2.2 INTEGRATIVE COMMENTARY

It is no surprise that concerns have been raised on the comprehensiveness of PTSD in understanding responses to rape victimization. Certainly, given the threat inherent in rape victimization, the focus on PTSD represents only a subset of the phenomena that characterize rape victims. A clinical perspective limits our broad understanding of the deleterious effects of rape victimization. Given the fact that sexual violence is an emotive subject, it has significant implications for women's health and well-being. Therefore a multifactor approach is necessary to understand the responses to rape victimization. It seems logical that in order to present a coherent picture of the impact of rape victimization on women, other aspects need to be considered and explored.

2.3 OTHER EFFECTS OF RAPE

Although less frequently reported, there are other psychological symptoms and problems that must be noted among rape survivors. A myriad of chronic problems leading to distress have been observed among adult survivors of sexual assault. Evidence from other studies suggest that psychological distress of mental and health sequelae of sexual assault victimization may explain some of the increased rates of physical health problems and medical service seeking among victims. Frazier, Conlon and Glaser (2001) found that, among other changes within a group of female assault survivors, the most common negative change within two weeks of assessment was in regard to mental health, specifically beliefs about the safety and fairness of the world.

Beyond the most commonly identified symptoms of PTSD, this form of victimization is associated with fear, anxiety, depression, suicide and physical health problems (Golding, 1994; Kilpatrick, Edmunds, & Seymour, 1992; Resick, 1993;). Coker, Derrick, Lumpkin, Aldrich, and Oldendick (2000) found that approximately half of the women reporting physical and sexual intimate partner violence in the survey sought community-based or professional services for mental health. Women who report a history of rape have also been found to report higher rates of general medical health complaints, including

gynaecological and functional impairment, than women without a history of sexual assault (Golding, 1996; Kimerling & Calhoun, 1994; Koss, Koss & Woodruff, 1991; Ullman & Breckilin, 2003). Specifically, compared to non-victims, female victims of sexual assault showed elevated rates of physical symptoms such as headaches, stomach-aches, back pain, cardiac arrhythmia and menstrual symptom (Kimerling & Calhoun 1994). In this regard, trauma-related sleep disturbance has been suggested to predict the unique variance in physical health symptoms (Clum, Nishith, & Resick, 2001).

Besides these physical symptoms, rates of chronic diseases such as diabetes, arthritis and physical disabilities are higher in female sexual assault victims than in non-victims (Golding, 1994). Other research suggests that most raped women show a significant impairment in the areas of sexual disorders (Faravelli *et al*., 2004). In a study evaluating the psychopathological consequences of a single rape occurring in adult women, Faravelli *et al.* (2004) found that raped women showed a significantly greater prevalence of PTSD as well as sexual, eating and mood disorders compared to other women who underwent severe, non-sexual life-threatening events (e.g. car accidents, physical attacks or robberies). Problems relating to sexual health and activity have also been observed among rape survivors. In this regard, women who reported child and adult sexual assault have been found to have higher rates of reproductive problems. Specifically discomfort and pain during sexual intercourse has been reported (Resnick, Kilpatrick, Saunders & Best, 1996). Wyatt, Guthrie and Notgrass (1992) found higher rates of reproductive and sexual health problems among women who reported child sexual abuse and adult sexual assault. In addition, loss of partner, divorce and break-up have also been observed among rape victim survivors. Monnier, Resnick, Kilpatrick and Seals (2002) found that approximately 21.1% of those who were victims of rape reported a relationship break-up within 3 months.

Rape has also been identified as one form of violence that seriously impacts on women's health, particularly in relation to HIV infection. Sexual assault increases the risk for HIV-transmission (Wood, Maforah, & Jewkes, 1998). In

this regard, it is also probable that rape heightens victims' fears and concerns about contracting HIV as a result of rape (Resnick, et al., 2002).

Other notable psychological symptoms and problems are suggested to include obsessive-compulsive symptoms and behaviour (Burnam et. al, 1988; Kilpatrick *et al*., 1987; Resick, 1988). Yet other evidence supports the causal relationship between exposure to traumatic events and drug and alcohol abuse. A cross-sectional study revealed that rape was among the traumatic events associated with at-risk drinking (McFarlane, 1988). In the Rape in America Survey, Kilpatrick *et al.* (1992) found that compared to non-victims, rape victims were 3.4 more times likely to have used marijuana (52% vs. 16%); 6 times more likely to have used cocaine (15.5% vs. 2.5%); and 10 times more likely to have used other drugs non-medically (15% vs. 3%). Darves-Bornoz, Lepine, Choquet, Berger, Degiovanni and Gaillard (1998) found that at one year following the rape, victims' disorders also included alcohol abuse. Other psychological reactions following rape include low self-esteem problems, social functioning and a history of depression. It appears that rape is perhaps the most potent trigger of women's psychological, health and social problems. The results of this research have assisted in transforming our understanding of the consequences of rape and understanding that rape is traumatic and has strong negative effectives on the psychological adjustment of victimized populations.

2.3.1 POSITIVE LIFE CHANGE

Despite the numerous studies documenting the devastating psychological effects that rape can have on survivors, there is a growing body of research demonstrating that traumatic experiences are not followed by unmitigated distress. While a great deal of research has focused on the negative consequences of trauma such as PTSD and increased fear, survivors of even quite horrific events (including rape) may also report positive life changes as a result of struggling to come to terms with those events (Frazier, Tashiro, Berman, Steger, & Long, 2004; Tedeschi, Park, & Calhoun, 1998). Specifically, Tedeschi and Calhoun (1995) suggest that an average of 50% to 60% of trauma survivors endorse some positive life changes. In particular, the areas in

which individuals report positive changes tend to reflect the three general life domains of changes in one's sense of self (e.g., increased strength and maturity), changes in relationships (e.g. increased closeness to others), and of changes in spirituality or life philosophy (e.g., changes in life priorities). Another common domain of growth identified is increased empathy with others' suffering (McMillen & Fisher, 1998). Recently, more work has contributed to our understanding of the process of positive changes. Specifically, this research has challenged the prevailing assumption that it takes a long time for survivors to report positive changes. Frazier, Conlon, and Glaser (2001) investigated the timing and course of post-traumatic growth and the relations between positive and negative life changes among recent female sexual assault survivors. Contrary to earlier suggestions that it takes months or years for survivors to report positive changes (Schaefer & Moss, 1998), other studies have found survivors to report positive changes even much earlier. Frazier *et al*. (2001) found that many survivors reported some positive changes even two weeks after the assault. Particularly, survivors reported increased empathy, better relationships, and greater appreciation of life, thus casting out beliefs that positive change occurs only after a long recovery process. Consistent with other theories, Frazier *et al*. (2001) confirmed that with regards to patterns of change, positive changes generally increase and negative changes generally decrease over time. This aspect is critical in the overall understanding of victims' responses to trauma.

It is clear from these findings that while the pattern of traumatic symptoms continues for long there may also be positive consequences to trauma. These findings highlight the importance of understanding the positive consequences of trauma in obtaining a more comprehensive picture of the aftermath of traumatic events. One of the most puzzling facts about rape trauma has been why some women develop chronic PTSD and others do not. Several factors have been implicated in the development and persistence of PTSD.

2.4 FACTORS AFFECTING DEGREE OF PSYCHOLOGICAL DISTRESS

As the study of sexual assault and rape has gained the interest of researchers, there is increasing acceptance of the fact that exposure to rape trauma may not always be sufficient to explain the development of PTSD. There are individual variations in response. Individual vulnerability factors have a role to play in understanding the response to rape victimization. In this regard, attempts to explain individual variations in response to abuse have been conducted (Yehuda, 1999). Given the fact that some people experience PTSD for a longer period than others, it is important to understand the factors that predict these symptoms. The concept of predisposition or variables that predispose individuals to PTSD has run the gamut of meanings. The conceptualisation of predisposition to PTSD has been summarized by three models: predisposition due to pre-existing psychopathology, predisposition due to pre-existing traits or characteristics considered to be within the range of normal, and predisposition due to the pre-existing experience of specified stressors in the family of origin (Emery, Emery, Shama, Quiana, & Jassani, 1991). The first two models locate the predisposing variables within the individual whereas the third model locates the predisposing variables within the environmental system of the individual. In essence, the individual contextual and social variables determine the risk of emotional problems. Providing support for the first assumption relating to pre-existing psychopathology, Acierno, Resnick, Kilpatrick, Saunders and Best (1999) found that for rape victims, a history of major depression increased the odds of presenting with PTSD. Therefore the impact of assault is intensified for previously depressed women. While this assumption that predisposition to PTSD is a function of pre-existing individual psychopathology, it has not resulted in sufficient explanations as to why PTSD occurs in some individuals and not others. Emery *et al.* (1991) argued that the relationship between pre-existing individual psychopathology and development of PTSD has not been reliably established.

The second model represents a shift to traits within the individual. This approach revolves around the basic assumption that some personal

characteristics increase vulnerability to PTSD. In a summary of results of 38 studies, Shalev (1996) identified PTSD risk factors to include pre-trauma vulnerability (e.g. family history of mental disorders, genetic and neuroendocrine factors), personality traits, early traumatization, the magnitude of the stressor, and some post-trauma factors such as social support. To sum, the second model approach revolves around the basic assumption that some normative personal characteristics increase vulnerability to PTSD.

Discussed in the following paragraphs are some of the specific risk factors for PTSD following assault. These are discussed within the context of the first two models or assumptions relating to predisposition to PTSD as a function of pre-existing personality trait. Specifically, below we examine the effects of personality traits, aspects of assaultive rape violence, as well as the experience of prior victimization on the development of PTSD and other associated factors.

2.5 PERSONALITY DISPOSITIONS

Researchers have increasingly turned to the examination of personality variables as predictors of well-being. Several narrative reviews have suggested that personality may be one of the strongest influences of subjective well-being. This view is based on the assumption that personality impacts how people perceive life events as they occur. In this regard, several theorists have investigated the role of the Big Five (e.g., Neuroticism, Extraversion, Agreeableness, Conscientiousness, Openness to Experience) traits in predicting subjective well-being. Various analyses in the existing literature have revealed that the five factors relate differently to positive and negative affect. For example, neuroticism defined as the predisposition to experience negative affective states and emotional instability, has been found to mostly correlate with negative affect (DeNeve & Cooper, 1998). In a review of literature across 9 studies to examine distinct personality constructs as correlates of subjective well being, DeNeve and Cooper (1998) confirmed hat being neurotic predisposes a person to experience less subjective well-being. In addition, they found that positive affect was predicted by Extraversion (predisposition to

experience more positive affect) and equally by Agreeableness. However, the five-factor relation to post-rape functioning has not been adequately studied. Some research has demonstrated that certain types of personality traits may exacerbate reactions to traumatic events such as rape (Costa & McCrae, 1986; Janis, 1974; Lazarus, 1966). In particular, one aspect of personality - Neuroticism - has been of interest to researchers due to its impact on response to stress. Primarily, low levels of neuroticism are seen to buffer people from developing PTSD even if they had experienced high levels of stress.

The research on the personality traits suggests neuroticism to be predictive of self-blame, withdrawal, use of hostile reaction, and indecisiveness among people who have experienced various stressful events (Bolger, 1990; McCrae, Costa, 1986). Specifically, the presence of neuroticism has been linked to increased emotional distress and reduced effectiveness of problem-solving abilities following sexual abuse (Follete, Naugh, & Follete, 1997). Lauterbach and Vrana's (2001) research revealed that among a sample of college students reporting a wide range of traumas there was a stronger relationship between those persons high in neuroticism and PTSD. However, for persons low in neuroticism there was a modest relationship between trauma intensity and PTSD. One possible interpretation of this finding could be that neuroticism magnified the impact of the event for those high in neuroticism and for those low in neuroticism, it buffered people from developing PTSD. This confirms previous assertions that personality leads different individuals to experience the same life events in a more positive or negative fashion.

In addition, several empirically tested models of the development of PTSD have also provided more insight on the role of personality traits in predicting development of PTSD (Barker-Collo, Melnyk, & McDonald-Miszczak, 2000; Joseph, Williams & Yule, 1995). Joseph *et al.* (1995) proposed the integrative cognitive-behavioural model of response to trauma as a way through which individual variation in response to the trauma of sexual abuse could be examined. Components of the model include three moderator variables (event stimuli, personality and crisis support), two mediator variables (event appraisals and coping), and two outcome or symptom variables (event cognitions and

emotional states). According to Joseph *et al.* 1995), event cognitions (processing of event stimuli-intrusive thoughts) are modified by personality variables. In testing the model, Barker-Collo *et al.,* (2000) confirmed a modified path model based on Joseph *et al.,* (1995). These authors found that personality, particularly neuroticism, affected perceptions of the victimization, which then influenced cognitive appraisals of the sexual victimization, and the re-experiencing of sexual related sights, which in turn directly affected emotional states. Therefore, the personality of neuroticism affects how one appraises the experience of victimization and floods individuals with high emotional states through recall of experience. The findings provided evidence that factors such as personality are important in determining individual variations in symptom presentation following sexual abuse.

Further research conducted on the mediational role of personality factors in predicting PTSD also suggests that personality traits related to impulse control may be associated with an increased likelihood of encountering a traumatic event (Breslau, Davis & Andreski, 1995; Lee, Vaillant, Torrey & Elder (1995). Other personality variables such as antisocial personality have also been suggested to be potent predictors of post-traumatic stress symptoms. In particular, one component of antisocial personality, namely, early behavioural difficulties, has been related to trauma exposure (Simons, King & King, 1991).

The perception of locus of control has also been investigated. Locus of control is a personality trait that defines the way in which individuals perceive their control over unforeseen stressors (Rotter, 1975). Specifically, internal locus of control refers to how certain people actively and consistently try to deal with life circumstances by exerting control over their own lives (Lefcourt, 1991). In this regard, Regehr, Cadell and Jansen (1999) found that those survivors of rape with perceived higher levels of control over the outcomes of events in their lives, showed lower rates of depression and post-traumatic stress symptoms six months and more after the rape. Conversely, women who perceived that they had lower levels of control showed higher rates of post-traumatic stress and depression. These results on control suggest that lack of perceived control over ones' life and circumstances can be quite detrimental to ones' well-being.

2.5.1 COMMENTARY

While various personality aspects have been suggested, the majority of these studies do not permit strong conclusions regarding the causal direction, nor a clearly linked relationship between PTSD and personality among rape victims. There is also no single aspect of personality that appears to strongly predispose people to PTSD. With the exception of neuroticism, other personality traits have received scant attention in the extant literature. Although Costa and McCrae (1980,1991) and other researchers have tested the patterns of correlations for the other Big Five factors (Agreeableness, Conscientiousness, Openness to Experience and Extraversion), these results do not present a simple picture. The role of these personality traits in relation to PTSD development among rape victims is poorly understood. Perhaps the lack of specificity about the role of these traits in predicting rape victims' psychological response has made it a less robust predictor for PTSD development. However, on the basis of the developments in the previous studies, it is clear that personality traits lead people to experience life in a positive or negative manner. Given this, an alternative approach to the role of personality in traumatic stress has also been considered. Numerous studies have investigated the personality factors that may buffer the negative effects of traumatic events and promote the positive outcomes. In this regard personality theorists have offered personality dispositions as resistance resources, which mediate and modify the intrusive symptomatology following sexual abuse (Bolger, 1990).

2.6 ASSAULT SEVERITY

The level of offender violence and the severity of a rape attack, in particular the use of escalated physical force or weapons, has been identified as one of the several factors related to exacerbation of severity and the individual differences in the development and persistency of PTSD symptoms in victims of rape (Ullman & Fillipas, 2001). These results suggest that the severity in terms of perceived life threat and physical injury might all be predictive of PTSD symptoms (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993; Stein, Walker, and Forde, 2000; Ullman & Fillipas, 2001). For example, Resnick, Kilpatrick

Dansky, Saunders and Best (1993) found that women who were injured during the assault or who perceived that their lives were in danger, were more likely to develop PTSD than other women who did not have these characteristics. Ullman and Fillipas (2001) found that greater physical injury to victims was related to higher PTSD symptom severity, as was the victim's perception of greater life threat. In addition, Ullman and Fillipas (2001) found that perceived life threat during the assault had a significant effect in predicting PTSD symptom severity among sexual assault victims. Similarly, Acierno *et al*. (1999), found that rape victims who were injured were almost three times (2.75 times) as likely to present with PTSD as those who reported no injury during the assault. Several other studies have also confirmed the significant relationship between the characteristics of victimization (severity, duration, frequency) and symptomatology as similar to those found in non-clinical studies (Feinauer *et al*., 1996; Resnick *et al*., 1993). In exploring further the impact of rape severity on victims' psychological adjustment, Draucker (1995) found that the traumagenic factor of powerlessness (represented by physical force or threat with physical harm) was indirectly related to feelings of guilt and social introversion among adult survivors of childhood sexual abuse. This supports earlier findings that those characteristics of one's abuse experience may predict later effects. Similarly, Cascardi, Riggs, Hearst-Ikeda, and Foa (1996) found that the four-monthly assessments indicated that assault brutality affected or influenced the severity of post-rape reactions. In support of these findings, Koss, Figueredo and Prince (2002) found that while assault severity (represented by the objective and subjective severity of the crime and stranger rapist) had a negative direct effect on physical symptoms of rape survivors, assault severity was also found to have an impact on victims' memory ratings including Re-experiencing memory, Non-visual memory and Memory Clarity, which can be interpreted as elements of post-traumatic disorder. A meta-analysis of 14 separate risk factors for posttraumatic stress disorder revealed that three factors relating to events during and after the trauma (i.e., greater trauma severity, lack of social support and increased subsequent life stress) conveyed the strongest risk of PTSD. Over time, several other studies have provided further evidence of the fact that a crucial variable in the development

of PTSD symptomatology is the presence or absence of abuse (Bennice, Resick, Mechanic & Astin, 2003).

To further advance our understanding of variables affecting recovery of rape victims, several studies have examined the effect that the brutality of the rape has on the victims' reactions by developing brutality scores or indexes based on several assault variables such as presence of a weapon, physical contact and assault and verbal threats (Arata, 1999; Norris & Feldman-Summers, 1981). Arata (1999) found that the physical severity in childhood sexual abuse resulted in increased self-blaming attributions following re-victimization, which was also related to greater psychological symptoms due to use of self-destructive coping strategies. Similarly, Barker-Collo *et al.* (2000) found that force or extent of the abuse was linked to greater frequency and variety of re-experiencing of sexual abuse and intrusive recollections of the violence among female survivors of sexual abuse.

In other studies, the impact of assault severity in predicting PTSD has also been linked to patterns of rape such as stranger and acquaintance rape. These studies have reported a combination effect of stranger rape and severity as predictive of PTSD, thus suggesting that PTSD is likely to develop among women who are raped and subjected to force or weapons and physically injured by strangers (Bownes *et al*. 1991; Wyatt, Notgrass & Newcomb, 1990; Zweig & Barber, 1997;). Bownes *et al.* (1991) found that rape victims with PTSD were more likely to have been attacked by strangers, subjected to force or weapons and physically injured than were victims without PTSD. Similarly Feehan, Nada-Raja, Martin and Langley (2001) found that among a group of 21 year old female New Zealanders, an increased likelihood of distress was associated with the location of assault and the relationship to the assailant. Cascardi, Riggs, Hearst-Ikeda and Foa (1996) also found that assaults by "dangerous" assailants, led to more severe overall PTSD than assaults by "safe" assailants. However, similar relations have also been observed among acquaintances. In a study designed to examine whether perpetrator type predicts the impact of sexual assault, Culbertson and Dehlec (2001) found that individuals in co-

habiting marital relationships reported PTSD symptoms of hyperarousal more than did women in an acquaintance group. Individuals sexually assaulted by a married or co-habiting partner reported more intrusive symptoms than did individuals in a dating or socially intimate relationship. They also found that individuals assaulted by an acquaintance reported slightly higher intrusion scores than women in a sexually intimate relationship with their perpetrator.

2.6.1 COMMENTARY

The findings from these studies demonstrate that assault severity affects the adjustment of women. The more severe the sexual assault and rape, the more severe the trauma symptoms displayed. In this regard, severity can be seen as an amplifier of frequency and duration of rape trauma among rape survivors. Certainly the current data highlights the potentially traumatic nature of the severity of rape. More importantly, the findings suggest that PTSD development and duration is not clearly differentiated by relationship with the perpetrator. Victims of stranger rape and acquaintance rape equally exhibit post-traumatic stress symptoms.

Despite the numerous findings confirming the significant impact of assault severity in predicting post-rape trauma symptoms, the results of these efforts have been contested by other findings. Some studies have indicated that the degree or severity of rape trauma did not predict later psychological reactions. Nor was the presence or extent of violence associated with victim reactions (Atkeson, Calhoun, Resick, & Ellis, 1982; Girelli, Resick, Marhoefer-Dvorak & Hutter, 1986; Sales, Baum, & Shore, 1984). Given this information, considerable research is still needed to search for important variables that influence reactions and recovery. To promote a healthy recovery environment for victims of rape, we require new research to identify the effects of specific assault severity on victims' adjustment; and to identify the possible pathways through which the level of severity may affect adjustment amongst rape survivors. Continued study of the impact of rape severity in predicting rape survivors' psychological response and coping with victimization is therefore warranted.

2.7 OTHER FACTORS AFFECTING DEGREE OF PSYCHOLOGICAL DISTRESS

Beyond the pre-existing personality-related issues and the situation-based circumstance of assault severity, several other factors relating to PTSD development and degree of distress have been suggested. Primarily, data points to aspects of victims' social status (education, income); and previous assault as also having a relationship to increased levels of distress post-victimization.

Despite the general lack of ethnic difference among survivors of rape, there has been more support for the notion that socio-economic status contributes to vulnerability to stress. Education and income status are among the most common demographic characteristics that have been suggested to be predictors of PTSD symptoms. Brewin *et al.* (2000) found that lower socio-economic status, less education and lower intelligence were good predictors of chronic PTSD across a number of studies. These studies also suggest that less-educated victims tend to report more PTSD symptom severity (Bownes O'Gorman & Sayers 1991; Ullman & Siegel, 1994). Specifically, Ullman and Fillipas (2001) found that less- educated victims of sexual assault reported greater PTSD symptom severity. Consistent with these findings, Ullman and Fillipas (2001) found that among female sexual assault victims aged 18 years and older, lower education levels were related to greater PTSD symptoms. Subsequently, Ullman and Brecklin (2002) also found that ethnic minorities with less education had greater odds of higher duration PTSD.

In expanding the knowledge on triggers of psychological disorders, several studies have also shown that the influences of personal variables (e.g., previous sexual assault history) are the best predictors of lasting post-rape psychological distress (Arata, 1999; Chu, 1991; Frank, Turner & Stewart, 1980; Norris & Kaniasty, 1994). Experience of prior victimization, including various forms of attack in childhood and or adulthood, appears to elevate risk of PTSD following new victimization. Significant research has shown that a history of sexual assault in either childhood or adulthood is associated with increased rates of

physical health problems (Golding, 1999) and medical seeking in women (Arnow *et al*., 1999). These studies suggest that extensive history of traumatic rape events and longer sexual abuse increases the odds of development and higher duration of PTSD. In particular, research has identified significant links between histories of childhood traumatic events and increased prevalence of adult psychological problems. PTSD and dissociative disorders have been found to be the most frequently cited disorders associated with histories of childhood abuse (Neumann, Houskamp, Pollock, & Briere, 1996). In this regard, the studies on adult survivors of child sexual abuse have reported significantly higher PTSD rates, ranging from 72%-100% (Rodriguez, Ryan, Kemp & Foa, 1997). As evidence of the impact of prior rape victimization, Arata (1999) found that rape victims with a history of child sexual abuse showed greater levels of psychological distress after the new rape. Consistent with these findings, Bolstad and Zinborg (1997) also found that women with histories of child sexual abuse on multiple occasions reported less perceived control, which was related to more PTSD symptoms after an incident of adult sexual assault involving force.

In addition, Nishit, Mechanic and Resick (2000) have proposed that post-rape PTSD symptomatology is attributable to the cumulative impact of childhood sexual trauma stressors and prior adult victimization rather than the impact of childhood sexual abuse alone. In their study on predictions of prior adult victimization history and current post-trauma symptomatology, Nishit *et al.* (2000) found that a higher rate of childhood sexual abuse was related to higher rates of subsequent adult sexual and physical victimization, which in turn contributed to the level of PTSD symptomatology following a recent rape attack. They also found that childhood sexual abuse posed a higher risk for subsequent victimization and symptomatology than childhood physical abuse. These findings confirm the important role of prior rape victimization in predicting victims' psychological symptoms and confirm the deleterious effects of rape on women. Several other studies have confirmed the link between prior sexual abuse in childhood (including repeated victimization) and problems in adult psychological adjustment and greater PTSD (Coffey, Leitenberg, Henning, Turner & Bennet, 1996; Follete, Polusny, Bechtle & Naugle, 1996). Repetitive

victims of rape have been found to have higher initial levels of distress and long recovery times. These findings suggest that even when event characteristics are controlled, having a rape history predicts unique variance in PTSD risk, thus implying that something about rape itself or post-assault responses to rape contribute to PTSD. In essence, childhood trauma, particularly sexual abuse, may set in motion chain reactions and contribute to increased negative impacts on mental health across the life-cycle. In this regard, it is clear that adult victimization and prior child sexual assault pose a threat to recovery from victimization.

Other research has implicated social factors, in particular interpersonal relationships and the recovery environment (e.g. support system responses), in predicting psychopathology including the PTSD severity among victims of rape (Coyne & Bolger, 1990, Lakey, Tardiff, & Drew, 1994; Ullman, 1996). In particular, negative social reactions from other people after disclosure of the rape experience, have been hypothesized to be related to increased psychological symptoms and poorer self-rated recovery among sexual assault victims (Campbell, Sefl, Barnes, Ahrens, Wasco & Zaragoza-De\iesfeld, 1999; Ullman, 1996). These relate to reactions from others that may either reinforce or compound the victim-blaming attitudes toward rape victims, which include disbelief and stigmatizing responses. In relation to this hypothesis, Ullman and Fillipas (2001) found that female sexual assault victims who disclosed their assaults to a range of formal and informal support providers showed that a range of negative social reactions, including victim blame and treating the victim differently, were related to greater PTSD symptom severity. This suggests that negative social reactions magnified the effects of rape on PTSD severity (Ullman & Fillipas, 2001). Similarly, in a cross-sectional study examining trauma-related social support in terms of others' reactions to the event, Ullman (1996) found that recipients of unsupportive responses from others showed poorer psychological adjustment. Pursuing the distinction between supportive and unsupportive social interactions, another study of rape victims interviewed 8 weeks after the assault examined both the negative and positive reactions and found that negative reactions (e.g., being treated differently by others, having someone take control, distraction) harmed victim adjustment, whereas positive

reactions had no effect (Davis, Brickman & Baker, 1991). However, they also found that recipients of unsupportive responses from others showed poorer psychological adjustment. They found that increased negative social reactions from others were related to increased PTSD symptom severity.

In essence, these findings confirm earlier assertions that negative features of social interactions, specifically those relating to being differently treated or receiving stigmatising responses from others, are more influential in predicting the presence of psychological symptoms than positive features. It is possible in this regard that victims may then internalise the stigma that they are different because of their assault and may therefore develop greater PTSD symptoms. The lack of an outlet for expressing their feelings may also increase their distress levels.

2.7.1 COMMENTARY

These reviewed findings confirm to a great extent that sexual assault is both unfortunately common and very traumatic. Given the prevalence of rape and sexual violence in our society, it is important for clinicians and counsellor groups to be aware of the long-term effects of rape on women and of those factors that are associated with post-assault adjustment. Whilst the research findings on the psychological response to rape victimization suggest that rape is expressively traumatic for most victims, there are also findings suggesting that there is nevertheless a substantial amount of variability in the way that victims are affected. Some theorists have suggested a variety of mediating factors that are effective in the recovery process. The following chapter presents an overview of the process of recovery from rape victimization. Specifically, the theoretical and empirical foundations of the process of recovery are reviewed. Although the area is broad, there is striking coherence in much of the literature about coping with stress. This coherence is based on the process of coping with victimization, the methods and the role of coping strategies.

In the following chapter we review the literature on the coping process of victims of rape, primarily focusing on the concepts central to an understanding of

coping with trauma: approach and avoidance as well as understanding other factors relating to coping with victimization such as attributions and rape myth beliefs.

CHAPTER 3

PROCESS OF RECOVERY FROM RAPE

3.1 INTRODUCTION

This chapter shifts focus from the clinical theories of trauma to the social psychological theory of stress and coping. Psychologists have long noted tremendous variations in how people react to similar stressful life events and circumstances. This observation about victims has generated an enormous amount of interest in the factors that predict how people cope with and adapt to such events. In this regard, the study of coping as a mechanism of adaptation has therefore become a mainstream interest in personality and social psychological research. Issues relating to how people deal with adversity, the kinds of coping processes they use in different situations and the associated benefits they reap, have produced a large body of research.

3.2 COPING THEORY

As alluded to in the previous chapters, the traumatic event by definition confronts people with extremely unusual stress, which then requires coping with the new situation. The different processes that survivors might undergo after being victimized or exposed to trauma constitute an important research area regarding trauma. The last decade has witnessed an increasing focus on understanding the recovery process of victims of rape and has provided insights on the variability of victims' responses to rape, as well as identifying theoretical models for the advancement of knowledge about the recovery processes of rape victims. The study of coping strategies as mechanisms of adaptation has become a mainstream interest in personality and social psychological research. Most theoretical models suggest that the consequences of life stressful events are dependent upon different factors such as appraisal and coping (Yule *et al*. 1999). In this regard, the influential work of Lazarus and Folkman (1984) has served as a useful lens for examining the interaction between a person and his or her response to situational demands. The Lazarus model, a social psychology theory, has been widely recognized as the most comprehensive

framework for understanding the stress response. Over time, this model has been refined to incorporate dimensions from several areas of psychology. Other theorists have also criticised this model as being individualistic and therefore negating a critical social component.

Lazarus and Folkman (1984) proposed the importance of coping in the relation between a stressful event and emotional outcomes. Lazarus and Folkman's (1984) work suggests that the mental health impact of a stressor depends on whether it is perceived as causing threatening personal harm or loss. They describe coping as a person's "constantly changing cognitive and behavioural efforts to manage specific external and or internal demands that are appraised as taxing or exceeding the person's resources" (Lazarus & Folkman, 1984). Consistent with Yule *et al.* (1999), Lazarus and Folkman's framework proposes that two processes are critical mediators of stressful person-environment relations and their immediate and long-range outcomes - cognitive appraisal and coping. Folkman and Lazarus (1991) argued that there are two processes to cognitive appraisal namely, primary and secondary appraisal. Cognitive appraisal is simply understood as the mental process of placing any event in one of a series of evaluative categories related either to its significance for the persons' well being (primary appraisal), or to the available coping resources and options (secondary appraisal). The essential feature of this formulation is that the evaluative cognitive process mediates person-environmental transactions within stressful situations in a crucial way.

3.2.1 Categories of Appraisal: Primary vs. Secondary Appraisal

In primary appraisal, an individual evaluates whether he or she has anything at stake in an encounter. For example, whether there is a potential for harm or benefit to oneself, is an assessment of the stressor. In essence, the primary appraisal is a process perceiving a threat to oneself whilst the secondary appraisal is the process of bringing to mind a potential response to the threat, and more so an estimation of personal resources available with which to deal with the stressor.

In secondary appraisal, an individual evaluates existing coping resources and options and assesses the possibilities for control in a situation to determine what, if anything, can be done to overcome or prevent harm, or improve the prospects for benefit. Primary and secondary appraisals are proposed to converge to determine whether an event is appraised as stressful. An event is appraised as stressful when primary appraisal of threat exceeds secondary appraisals of coping abilities (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Green, 1986). Thus, coping is a process executing that response (Carver & Scheir, 1994; Lazarus & Folkman, 1984). Within this process perspective, coping is not a global style but a set of specific strategies used by a person in a specific event and emotional outcomes. Overall, coping is a process (in contrast to an enduring trait), by which a person seeks to manage challenging, threatening or harmful demands. Coping therefore involves a conscious, purposeful effort with the intent of managing or solving a problem or situation (Cramer, 1998). In this context, coping is perceived to be a mechanism that serves as a means for adaptation that is aroused by a situation of psychological dis-equilibrium (Cramer, 1998). This view is similar to Bal, Van Oost, DeBourdeauhuji, and Crombez's (2003) definition of coping as more of a process that is influenced by the context in which it occurs. As such, coping efforts are viewed as process-oriented and context-specific and are distinguished from more stable or dispositional coping resources and from the outcomes of coping efforts. Therefore, coping may be thought of as a dynamic process that shifts in nature from stage to stage of a stressful situation. In this regard, the characterization of coping appears to be more situation- rather than person-specific, it can be thought of as reactions to situations.

3.2.2 Coping Styles

Coping styles or strategies are referred to as intentional cognitive or behavioural attempts by an individual to manage a stressor (Affleck & Tennen, 1996). As such, coping strategies involve conscious purposeful efforts. These are carried out with the intent of managing or solving a problem. Contemporary theory and research suggests that one of the factors which has a proven track record in mitigating the relationship between life stress and physical and

psychological functioning is coping styles (Lazarus, 1999). Specifically, theorists have suggested that coping reactions can be divided into two fundamental modes. On one hand, they involve active and intentional efforts to make a crisis pass off more favourably, thus eliminating the aversion experienced by victims (Lobbman, Greve, Wetzels & Bosold, 2003). On the other hand, coping reactions may also consist of the acceptance and adaptation to unfavourable events. Within the coping framework, the cognitive appraisals direct the strategies that are used to cope with the event, and in turn, the coping efforts are proposed to mediate emotional response to stressful life events. Therefore, coping has two major functions: regulating stressful emotions (emotion- focused coping) and altering the troubled person-environment relation that is causing the distress (problem-focused coping, (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Despite the characterization of these two coping mechanisms as being only situationally dependent, on the other hand there is evidence accumulating that coping strategies may in fact be dispositional variables related to personality traits (Watson & Hubbard, 1996). Inspite this theoretical position, there is little empirical evidence to support the assumption of the dispositional stability of coping strategies. The commonly used terms for problem-focused coping are approach (or task-oriented coping) and avoidance-oriented coping for escapism or emotion-focused coping (Carver, Scheir & Weintraub, 1989; Folkman & Lazarus, 1980; Frazier & Burnett, 1994; Lazarus & Folkman, 1984;). Both approach and avoidance styles have been suggested to portray a coping thought and action that people sometimes engage in when under stress.

3.2.2.1 APPROACH COPING

Problem- focused coping involves active attempts (approaches) to deal with stress or doing something to alter the source of the stress. Examples are active problem solving and seeking information and advice. Similar to Lazarus and Folkman's (1984) problem -focused coping theory, according to Carver *et al*. (1989), active or task coping is understood as the process of taking active steps to try to remove or circumvent the stressor. This includes initiating direct action, increasing one's efforts and trying to execute a coping attempt. In addition, Carver *et al*. (1989) also suggest that other critical processes involved in the

problem-focused coping include planning, thinking about how to cope with action strategies, thinking about what steps to take and how best to handle the problem. Suppression of competing activities has also been suggested as a critical aspect of problem-focused coping. Carver *et al*. (1989) define suppression of competing activities as putting other projects aside, trying to avoid becoming distracted by other events, even letting other things slide in order to deal with the stressor.

3.2.2.2 AVOIDANCE COPING

By contrast, emotion-focused coping refers to emotional responses to stress as means of reducing or managing the emotional distress that is associated with the situation. Examples are avoidance (e.g., behavioural efforts to avoid the stressful situation, efforts to avoid thinking about the problem by using fantasy or wishful thinking or imagining that the situation was better) as well as distraction strategies (e.g., efforts to avoid thinking about the problem situation by using distracting stimuli, entertainment, or some distracting activity), (Lazarus, 1993; Joseph *et al*. 1997). Seeking social support for emotional reasons (getting moral support, sympathy or understanding) is considered an aspect of emotion-focused coping. Thus, emotion-focused coping can be seen as avoidance-oriented coping (Endler & Parker, 1990).

In its simplest form, this pair of concepts refers to two basic orientations toward stressful information or two basic modes of coping with stress. Approach and avoidance coping styles are the shorthand terms for the cognitive and emotional activity that is oriented either toward or away from threat (Roth & Cohen, 1986). When looking at these coping strategies, approach strategies seem useful in terms of allowing for appropriate action and taking advantage of changes in a situation that might make it more controllable and thus allow for ventilation of affect. On the other hand, avoidant strategies seem useful in reducing the stress and preventing anxiety from becoming crippling.

3.2.3 Coping and Trauma

A traumatic event by definition confronts people with unusual stress and requires coping with the unfamiliar situation. Trauma literature is in agreement that the immediate period after trauma is crucial and that most coping happens within the first weeks and months following the traumatic event. Although most stressors elicit both types of coping, problem focused coping methods tend to predominate when people feel that the stressor is such that something constructive can be done, whereas emotion-focused coping tends to predominate when people feel that the stressor is something that must be endured (Folkman & Lazarus, 1980). Theories of coping have been considered across different stressful-life events and with diverse samples. In this regard, the broader literature of coping highlights its context-specific nature. For example, Mcintosh (2001) examined the coping strategies and psychological distress of mothers exposed to the uncontrollable stressor of having their infants hospitalised in the Neonatal Intensive Care Unit (NICU). Mothers of more medically fragile infants used more cognitive (approach) coping than mothers of healthier infants. In addition, these findings revealed that mothers who used more cognitive and less avoidant coping reported less distress during their infants' hospitalisation. Similarly, using vignettes, Ben-Zur (2002) tested the coping strategies and assessment of affect in the context of health and work threats among community residents between the ages of 25 and 60. The results revealed a positive association between active coping and positive affect.

3.2.4 COPING STRATEGIES LINKED TO RAPE VICTIMIZATION

With increased evidence substantiating the pervasiveness of rape against women in our societies, researchers have taken interest in understanding the coping processes of rape survivors. Prior studies of methods of coping with rape used various (non-standardized) measures of coping. In the initial study of coping with rape, Burgess and Holmstrom (1979) reported that perceived social support, increased activity outside of the house, and conscious use of various cognitive strategies were associated with fewer psychological symptoms long after the assault had occurred. They go on to discuss Suppression, which is

trying not to think about the rape and Explanation, which is identifying a reason why the rape occurred, under coping strategies. By contrast, later on Meyer and Taylor (1986) focused on Stress Reduction techniques (such as thinking positive thoughts), Taking Precautions (e.g., locking doors at home, car and walking with keys ready) and Withdrawal (Remaining at Home); as well as Expressiveness (i.e., directly showing feelings); Nervous/Anxious coping strategies (e.g., snapping at people); and Cognitive coping strategies (such as trying to rethink the situation). They found "remaining at home" and "withdrawal" coping factors were associated with symptoms of depression and fear among victims of sexual assault. Burt and Katz (1987) further suggested avoidance, expressive and cognitive strategies as some of the coping factors used by victims of rape. Avoidance coping strategies, for example trying to forget about it or keeping it out of mind are also discussed by Cohen and Roth (1987). Subsequently, these various forms of coping have been replaced by the standardized measures of coping (i.e., problem and emotion- focused).

Amongst all these suggested coping factors, the emotion-focused coping and problem-focused coping have received a considerable degree of investigation in the studies of coping with rape. Simply, problem-focused coping has been defined as the behavioural management of the external environment involving namely, approach-coping which is the orientation towards the problem i.e. rape (e.g. "I deal with my feelings about the rape"). By contrast, emotion-focused coping involves regulation of the internal stress or a focus on the emotional distress resulting from the rape. This may involve expressing feelings and seeking social support from friends and relatives. Theorists suggest that people usually use both types of coping, although one type may be emphasized more, depending on the context; for example, people may use more problem-focused coping in controllable situations and more emotion-focused coping in unchangeable situations that must be endured (Carver, Scheier & Weintraub, 1989; Folkman & Lazarus, 1980; Folkman, Lazarus Dunkel-Schetter, DeLongis & Gruen, 1986). Frazier and Burnett (1994) examined the coping strategies used by rape victims immediately post-rape victimization. They found that taking precautions and thinking positively (problem focused) were among the

most common coping strategies, whereas staying at home and withdrawing (avoidance-emotion focused coping) were least common among the women.

In particular, it has been suggested that rape victims alternate between emotion-focused coping and problem-focused coping and are more likely to engage in avoidant coping strategies and cognitive strategies (Arata, 1999; Burt & Katz, 1987; Frazier & Burnett, 1994). Bal *et al.* (2003) found that avoidance was the coping strategy most commonly used by sexually abused adolescents when compared with other stressful events. In this regard, Bal *et al.* (2003) found that avoidance coping mediated the relationship between sexual abuse and psychological distress. Consistent with these findings, Frazier and Burnett (1994) found that many victims (93%) reported emotion-focused coping rather than problem-focused coping. Similarly, Arata (1999) found that rape victims with a history of sexual abuse were likely to engage in nervous coping, which included avoiding activities, eating, and or smoking a lot. At the same time, Arata (1999) found that the women also reported greater use of cognitive strategies such as trying to see the situation from a different perspective, considering ways in which the behaviour was adaptive as well as finding out more information about sexual assault. Using a sample of women who had been sexually abused during childhood, Coffey *et al*. (1996) found that disengagement methods of coping (coping strategies that disengage the individuals from personal and environmental transactions, e.g., avoidance) were used more often in response to stressful aftermaths of childhood sexual abuse. Consistent with these findings, Leitenberg, Greenwald and Cado (1992) found avoidant methods of coping to have been the most frequent methods of coping used by adult women in response to having been sexually abused in childhood.

As indicated by the above findings, research has continued to confirm that emotion-focused coping of avoidance is more prevalent in sexual aggression cases than in other interpersonal violence crimes. Providing further support to the use of emotion-focused coping by survivors of sexual assault, Arata's (1999) findings among victims of rape with and without sexual abuse history also confirmed a greater use of avoidant coping (emotion- focused) strategies by rape victims. Arata (1999) found that victims of rape with both child sexual

abuse history and no child sexual abuse history engaged in avoidant coping strategies, with the child sexual abuse victims engaging in more avoidant and self-destructive coping. More recently, Neville, Heppner, Spanierman and Clark (2004) examined the Culturally Inclusive Ecological Model of Sexual Assault Recovery (CIEMSAR) among Black and White college student rape survivors. Neville *et al*. (2004) reported that both groups used avoidance and approach-introspective rape-related coping strategies. Thus, contributing to previous findings suggesting that survivors of rape may alternate between the two types of coping.

3.2.5 Coping Strategies As Mediators

The broader research literature has begun moving away from an exclusive focus on coping to an understanding of which factors relate to the presence of well-being and adjustment. Specifically, various studies have further advanced the knowledge on coping strategies by specifically identifying coping strategies associated with better outcomes for victims of rape (Arata & Bukhart, 1998; Burgess & Holmstrom, 1979; Burt & Katz, 1987; Cohen & Roth, 1987; Frazier, & Burnett, 1994; Meyer & Taylor, 1986). Some consistency has been reported in the literature concerning the effects of coping styles, with task or problem-focused coping associated with better outcomes (e.g., less psychological dysfunction), whilst avoidance or emotion-focused coping is associated with greater dysfunction (Higgins & Endler, 1995; Wilkinson, Walford, & Espnes, 2000). These coping strategies have often been associated with adjustment to a variety of stressful life events including rape (Folkman, Lazarus, Dunkel-Schetter, Delongis, & Gruen, 1986; Lazarus, 1999; Santello & Leitenberg, 1993,). In this regard, Herman-Stahl and Petersen (1995) found that adolescent girls who preferred active coping strategies to confront life problems (including sexual assault), reported less depressive symptoms than adolescents who more often relied on avoidant strategies. To such an extent, the active coping approach was found to be a mediator between a sexual distressing event and the occurrence of anger. Specifically, research indicates that elements of task- or problem-focused coping such as keeping busy, thinking positively and suppressing negative thoughts are associated with lower

symptom levels. In relation to this, Arata (1999) reported that thinking positively about the rape, such as trying to see the situation from a different perspective and considering ways in which ones' behaviour could have been adaptive (cognitive coping), was associated with less distress. Presumably, cognitive strategies are then more adaptive.

By contrast, the use of emotion-focused coping strategies has been associated with poorer psychological adjustment. Specifically, the use of avoidant coping strategies such as withdrawal and staying at home has been associated with more negative psychological problems. For example, Neville *et al*. (2004) found that greater reliance on avoidance coping strategies among Black and White college women rape survivors was related to lower levels of psychological adjustment (Valentiner *et al.*, 1996). In addition, the use of self-destructive coping strategies such as drinking a lot, thinking about killing and blaming oneself has also been associated with a larger portion of psychological trauma symptoms among female victims of rape. More recently, several other studies have confirmed that avoidant coping strategies correlate with higher levels of psychological distress (Rotheram-Borus *et al.* 1996; Wagner *et al*. 1996), immunological deficits (Goodkin *et al.* 1992); and increased numbers of physical symptoms (Rotheram-Borus *et al.* 1996); including depression (Fukunishi, *et al.* 1997). Beasley, Thompson and Davidson (2003) found that emotion-oriented coping had a consistent direct role in elevating scores of somitization, anxiety and depression among male and female victims of stressful life-events. In addition Beasley *et al.* (2003) found that whilst females did not use emotion-oriented coping any more than men did, when females used the emotion-oriented coping, it was to their detriment. On the other hand, some emotion-focused strategies, such as self-control and optimism, are associated with low levels of distress (Pakenham, Dadds, & Terry, 1994). In assessing the history of child sexual abuse and childhood strategies for coping, Merrill, Thomsen, Sinclair, Gold, and Milner (2001) found that avoidant and self-destructive coping were strongly related to symptoms, while constructive coping was associated with decreased symptoms.

These findings confirm that amongst all other predictive variables, coping bears the strongest relationship to symptomatology. These findings therefore suggest that the use of emotion-focused coping in the form of avoidance is maladaptive to victims of rape as it is associated with greater psychological distress compared to the approach and cognitive coping strategies.

A growing body of research has further linked coping resources to positive change (Frazier, Tashiro, Berman, Steger & Long, 2004; Mohr, Dick, Russo, Likosky & Goodkin, 1999). Compared to other correlates of positive change such as social support and religious faith coping, Frazier *et al.* (2004) found approach coping to be the most strongly related to initial levels of self-reported positive change among sexual assault survivors. While these studies provide evidence on the role of coping strategies as mediators of psychological symptoms and response, very few studies have examined of psychological distress in predicting coping.

3.2.6 COMMENTARY

The research literature presented in the preceding sections suggest that the coping process involves, purpose, choice and flexible shifts, based on the situation. Coping strategies intentionally engage in activity that will address the problem directly and indirectly. More importantly, the literature provides significant progress in the understanding of the different types of coping and the role these play in predicting and mediating psychological adjustment. Such work has been an important step in moving beyond the need to document the coping process of victims to finding the link between coping strategies and adjustment. While thes studies provide evidence on the role of coping strategies as mediators of psychological symptoms and response, there is limited information available on the role of psychological distress in predicting coping. Coping with rape victimization cannot only be looked at as a function of psychological response but we also need to understand the factors that influence coping. Thus, understanding the contributing factors to coping may be particularly critical for decreasing long-term negative consequences and may further promote resilience and recovery among survivors. It is here that the field

of rape victimization may benefit from continuing to incorporate other elements critical to the process of coping.

Further to identifying coping strategies used by victims of trauma, recent studies have also begun to explore what other factors may influence coping. Specifically, other studies have drawn attention to the importance of psychosocial factors in coping with stressful situations. From a cognitive perspective as suggested in Folkman and Lazarus' (1985) theory, current thinking on stress and coping places much emphasis on the process of appraisal of the stimulus as well as on causal attribution. The study of social cognition provides an important insight into understanding the overall process of coping and making sense of the social world. Furthermore, current views have emphasised the importance of personality and environmental influences in dealing with stressful situations (Joseph, Yule & Williams, 1995). In the following sections several factors related to coping with victimization are explored.

3.3 FACTORS RELATED TO COPING

3.3.1 SOCIAL COGNITION

Fiske (1993) suggested that we make sense of the social world in which we live, by combining stored information about others, in order to make judgements about them, predict future actions and draw inferences about their behaviour. Critical to this processing of information are two mental structures – schemas and prototypes (Fiske & Taylor, 1991). Schemas are defined as mental frameworks containing information relevant to specific situations or events, which help us to interpret these situations and what is happening in them. Schemas provide us with a mental scaffold or structure for understanding social information in the context of information we already have. Related to schemas, prototypes have been suggested to involve mental models of the typical qualities of members of some group or category. It has been suggested that we use these frameworks in order to interpret the social world. Schemas are also said to play a vital role in social thought, particularly in three processes of

thought - attention, encoding and retrieval of information (Baron & Byrne, 1997). Attention refers to what we notice about others' actions. Encoding refers to the processes through which information, once it is noticed, gets stored in memory while recovery refers to the process through which we recover information from memory in order to use it in some manner - for example, in making judgements about other people. Theorists in social cognition suggest that with regard to attention, schemas play an important role in determining the extent to which we pay attention to unexpected events or actions. This suggests that since schemas tell us what to expect, we are then more drawn to attend to unexpected events or actions.

At the core of our quest to understand events around us or others' actions, cognitive appraisal is suggested to play a critical role in the retrieval of information from memory as well as in predicting emotional reactions and coping mechanisms. Lazarus (1991) suggests that a person's emotional response to an event is neither determined by the actual event nor by intra-psychic processes, but rather by a cognitive appraisal of the experience. Cognitive appraisals are believed to be influenced by both individual and socio-cultural variables including family history, existence of prior trauma, personality, coping style, ethnicity, class, sexual orientation, community attitudes and gender- based norms (Koss, Heise & Russo, 1994). Joseph, William and Yule's (1995) integrative model is among the few that has successfully examined the individual variation in response to trauma of sexual abuse. Joseph *et al.*'s (1995) model of response proposed a pattern of interrelationships between certain variables. The starting point of the model is event stimuli, which may be defined as the characteristics of an event, such as duration, frequency and type of sexual abuse. According to this model, the stimulus presented in the traumatic event is then processed as event cognitions, which take the form of intrusive thoughts (parallel to the symptom of post-traumatic stress disorder), emotions, and behaviours. These event cognitions are influenced by appraisal – thoughts about the causation of traumatic events and the information depicted in event cognitions, which are influenced by personality. Joseph *et al.* (1995) stated that event cognitions are therefore moderated by personality variables. In the model, the occurrence of event cognitions and appraisals that follow

exposure to event stimuli, are then proposed to elicit strong emotional states such as depression, sadness, guilt, anxiety and dissociation (Barker-Collo, Melanyk & McDonald-Miszczak, 2000) as well as activating attempts at coping. Barker-Collo *et al.* (2000) confirmed a modified approach based on Joseph *et al.*'s model (1995) of survivors' response to their cumulative exposure to sexual trauma. Barker-Collo *et al.'s* (2000) model began with personality, which affected perceptions of the victimization. Both of these variables influenced cognitive appraisals of the sexual victimization and the amount of re-experiencing of sexual assault-related sights, sounds, and smells, which in turn directly affected emotional states.

Contributing further to attempts aimed at explaining individual variation in response to rape, Koss *et al.* (2002) theorized that cognitive responses to sexual violence are best understood within the context of an individual's prior and continuing exposure to violence; social traditions and family dynamics; past and present state of mental health; and personality traits that may affect the processing of life experiences. Specifically, Koss *et al.* developed and tested a cognitively mediated model of the emotional processing of rape, which incorporated relevant personal characteristics among two hundred and fifty three female rape survivors. According to Koss *et al.*'s cognitive mediation model, the survivor's personal history influences the form of rape to which the victim is vulnerable. It is believed that the rape characteristics or actual rape experienced then influences how the survivor attributes the blame and the formed maladaptive beliefs reflecting the negative influence of trauma. More importantly, the social cognitions are believed in turn to influence how the memory characteristics or memory of the rape is socially constructed. This cognitive model postulates that the impact on health outcomes flows from how the rape is remembered. In particular, the model confirms the interplay of several factors, namely, the effect of rape characteristics (severity) in predicting social cognitions (behavioural self-blame, characterological self-blame and external blame); as well as the effects of personal characteristics (which are independent of rape characteristics) on social cognitions; and finally the effect of these variables on psychological symptoms of rape. In this regard, the most-

studied social cognitive variable associated with adjustment has been the attributions of blame made by victims for their victimization.

Research has begun to point to the importance of variables such as causal beliefs about why the trauma happened, self-blame and constructs that capture how survivors understand and make sense of what has happened. To date several studies have examined the role of attribution in the process.

3.3.2 ATTRIBUTION

3.3.2.1 OVERVIEW

Attribution is a key aspect of social perception, which is concerned with how people account for the event they experience. In other words, attribution is the process by which people use information to make inferences about the cause of behaviour or events. According to the attribution theory, people have a need to explain the events that occur in their world, particularly when anything unusual, unwanted or unexpected happens (Weiner, 1985). Zanjoc (1980) argued that this tendency is strongest when the events are the actions of other people, and are unexpected, unusual, or distressing (Hastie, 1984; Taylor, Lichtman & Wood, 1984; Wong & Weiner, 1981). Social psychologists have suggested that the interest in making these inferences stems, in a large measure, from a basic desire to understand the cause and effect relationships in the social world (Pittman, 1993). Over the past 40 years, studying the attribution process has been a primary concern of a number of social psychologists. The original proposition of attribution was made in the context of the influence of Gestalt psychology. Heider (1958) was the first to analyse how people attempt to understand the causes behind behaviour. He believed that everybody has a general theory of human behaviour called naïve psychology and they use it to search for explanations of social events. Heider believed that people are motivated by a need to form a coherent view of the world, and the need to gain control of the environment. He emphasized the fact that we do not just see a series of meaningless behaviours in another person, instead we assume that we are faced with another intentional being like ourselves. In this regard,

Heider (1958) considered the locus of causality to be important in making judgements. According to Heider, people attribute a given action either to internal states or external factors. An internal attribution is suggested to consist of any explanation that locates the cause as being internal to the person, such as personality traits, moods, attitudes, abilities, or effort. An external attribution consists of any explanation that locates the cause as being external to the person under judgement, such as the actions of others, the nature of the situation or luck. Weiner (1986) expanded on Heider's distinction between internal and external locus of causality by including questions about stability and controllability. He suggested that stable causes are permanent and lasting whilst unstable causes are temporary and fluctuate. Weiner (1986) believed that the stable/unstable dimension was independent of the direction of causality. Some cases may be internal and stable whereas others may be internal but unstable. Likewise some causes are seen as external and stable whereas others are perceived to be external and unstable. A third dimension to Weiner's expanded model includes the controllability of the causes. According to Weiner some causes can be within ones' control with others being outside one's control. Since Heider's initial formulations, other social psychologists have expanded upon his insights. As the basic knowledge about attributions has increased, the theory has also served as a useful framework for understanding diverse issues (Joseph, Brewin, Yule & Williams, 1991; 1993).

3.3.2.2 ATTRIBUTION AND VICTIMIZATION

Over time, considerable research has been devoted to describing a vast array of inferential strategies that people construct to master, reduce or recover from the characteristic symptoms of emotional distress following victimization (Lazarus & Launier, 1978; Lazarus & Smith, 1988). In this regard, there has been growing evidence to suggest that people do have a need to make casual attributions following traumatic events. The research in this area indicates that victimization elicits attributional searches and invokes attempts to comprehend and explain the whys and wherefores of ones' misfortune (Weiner, 1985; Wong & Weiner, 1981). Higgins and Snyder (1990) suggest that underlying many of

the answers to these queries is the role of the internal-external dimension, representing the degree to which the occurrence of the event is linked or unlinked to aspects of the self. It seems therefore that individuals' appraisals of traumatic events arise from enduring beliefs about themselves and others.

In essence, individuals attempt to make sense of their misfortunes by looking at how the event could have been caused by the internal factors linked to aspects of themselves or if the event was due to uncontrollable external factors. In subjectively associating the occurrence of the event with aspects of the self, such as personality traits, moods, attitudes, abilities or efforts, the internal pole is dominant. However, making reference to the presence of the perpetrator, the situational circumstances, the society, the nature of the situation or luck represents external attribution (Winkel, Denkers & Vrij, 1994). However, more recently Sabini, Siepmann, and Stein (2001) have argued, on the basis of re-examination of classical social influence and attribution studies that traditional notions of internal (dispositional) versus external (situational) causality are misguided. They suggest that this distinction is problematic because what has traditionally been defined as situational in attribution studies may very easily be re-cast as dispositional and vice versa. Meaning that people do not have a general tendency to attribute one way or another, but that they underestimate the importance of specific factors such as motivation to save face and avoid embarrassment. As such, they recommend that behaviour should be instead be seen and understood as the product of both person and environment. Fein (2001) concurs with this and expands his argument to suggest that the context in which participants are asked to make attributions is critical.

On the other side, Lipe (1991) maintained that attribution theories in general are based on the use of counterfactual information. She argued that the major attribution information framework, which is based on the belief that people engage in a complicated process of causal logic (about whether the event would have occurred if the proposed cause had not occurred) when attributing causality for events. Drawing away from this perspective, the existential phenomenology (which focuses on what appears to be consciousness/awareness) argues that our attempts to arrive at description of

phenomena is based on cultural assumptions that dispose us to certain explanations, which then contaminate our appreciation of phenomena. In this regard, the existential phenomenologists (Merleau-Ponty, 1962) argued that it is impossible to ever achieve a "God's eye and value free perspective". In spite of the various contrasting views on causal attribution, there has been extensive research on the attributions of dispositions and traits.

3.3.2.3 ATTRIBUTION STYLES

In further exploring attribution theory, causal attributions for the negative event are thought to be a function of the person's attributional style and the situational information available (Alloy & Tabachnik, 1984). Attributional style is considered as one of the determinants of causal attribution. It forms part of the deep structure of schemata (stable and enduring organisational structures or aspects of personality; (Beck & Emery, 1985). Attributional style is also an integral part of the hopelessness theory (Abramson, Metalsky, & Alloy, 1988) which predicts that individuals who characteristically explain negative events in terms of internal, stable, and global causes and positive events in terms of external, unstable and global causes are vulnerable to depression as they will then tend to explain real events in this way. In this regard, the hopelessness theory, a reformulated model of learned helplessness (Abramson, Seligman & Teasdale, 1978) has received considerable attention. The hopelessness theory of depression (Abramson, Metalsky, & Alloy, 1988) postulates that following a negative event, individuals who make causal attributions for the event's occurrence to stable factors (i.e., the cause is perceived as something that persists across time) and global factors (i.e., the cause is perceived as something that affects a wide range of outcomes in ones' life) will experience an expectation of hopelessness which may lead to a sub-type depression which is characterised by hopelessness. It is suggested that symptoms are further compounded by lowered self-esteem if the stable and global attributions are also internal (i.e., wherein the cause is perceived as residing within the person). A lack of social support also contributes to the expectation of hopelessness (Joseph *et al*. 1995).

3.3.2.4 ATTRIBUTION STYLES OF RAPE VICTIMIZATION: SELF-BLAME

Attribution theory has also been extended to understanding the influence of attribution on adjustment to rape victimization. One factor related to post-rape trauma is the survivors' belief about why the rape occurred. A number of researchers have concluded that attributions of causality are important predictors of adjustment following rape (Frazier, 1990; Meyer & Taylor, 1986). Answering the question of "Why did this happen to me?" assumes particular importance for victims of traumatic events such as rape and has important implications for how others respond to the victim. Nevertheless, the role of causal attributions in post-rape recovery has received relatively little systematic investigation.

Much of the research on the relations between attributions and post-trauma distress has been guided by Janoff-Bulman's (1979) influential model. Janoff-Bulman (1979) expanded the internal-external dimensions by proposing a model of internal attribution as a beneficial process in facilitating adaptation and successful coping. Janoff-Bulman proposed that a distinction be further made within the internal attribution dimension, to include behavioural self-blame and the characterological self-blame attributional styles. She identified the two attributional styles as the cognitive appraisals that impact on post-rape adjustment (Janoff-Bulman & Frieze, 1983). Janoff-Bulman defined characterological self-blame as blame that involves the idea that one's character or other enduring qualities (e.g., "it happened because I am a bad person") are the reason one was raped. Behavioural self-blame, on the other hand, would involve blame related to behaviours one had engaged in prior to the rape or behaviours that can be controlled and thus changed in the future (e.g., "It happened because of what I did"). Janoff-Bulman theorized that behavioural self-blame would result in improved post-rape adjustment, in contrast to characterological self-blame, which was theorized to have negative emotional effects. Behavioural self-blame was hypothesized to be adaptive for

victims because this entailed blaming one's victimization on pre-assault behaviour, which presumably can be altered to prevent future victimization. According to Janoff-Bulman (1979), behavioural self-blame promotes the belief that negative outcomes can be avoided in the future. Conversely, characterological self-blame, which involves attributing a negative event to one's character, is not adaptive because it does not promote a sense of future control.

Research on these attributions suggests that many victims of sexual assault use both types of self-blame whilst still holding the external factors such as the perpetrator and societal blame attribution as primarily responsible for the assault (Arata, 1999; Frazier, 1990). For example, in examining the relationship of sexual assault and victim attributions of blame, Ullman (1997) found that adult sexual assaults were related to more self-blame and more external blame whereas childhood sexual assaults were related to external attribution. Arata (1999) found that women with a history of child-sexual abuse were more likely to engage in self-blaming attributions regarding the rape. That is, they were more likely to blame themselves for the rape (behavioural self-blame), including seeing themselves as having deserved the rape, being a victim type (characterological self-blame), being a bad person, or not being able to take care of one's self.

Several theoretical perspectives have also provided evidence to the fact that causal attribution can lead to emotional distress. One of the factors observed to be related to distress after rape is victim self-blame. Women who attribute blame for the rape to internal factors such as their own character or behaviour have been found to experience significantly higher rates of depression both in the period immediately following the assault and in the longer term. By contrast, women who blame external sources, such as a society that tolerates the abuse of women, have been found to experience more positive adjustment after rape (Frazier, 1990).

Consistent with these findings, Koss *et al*. (2002) found that blaming one's character for rape led to substantial maladaptive beliefs and exacerbated global

distress. In addition, both characterological self-blame and behavioural self-blame had direct effects on re-experiencing memory which in return was found to have a direct effect on post-traumatic stress symptoms. The alternative model of emotional processing of rape proposed by Koss *et al.* (2002) provided some useful explanatory factors to be considered for any model of post-rape distress.

In spite of the fact that Janoff-Bulman's model has been widely cited, it is inconsistent with findings to date on the relationship between self-blame behaviour and coping among rape survivors. Furthermore, research on these attributions of blame suggests that many victims of sexual assault also use both characterological self-blame and behavioural self-blame with both types of attribution being associated with higher distress, both immediately post-rape and over time (Arata, 1994; 1999; Arata, Frazier & Schauben, 1994; Frazier, 1990; 2000; Frazier & Burnett, 1990; Resick, 1990; Ullman, 1996). Arata's (1999) results indicated that victims who used both types of self-blame attribution were more likely to engage in nervous coping, which included avoiding activities, eating and/or smoking a lot, taking prescriptions drugs to relax, sleeping a lot, and crying a lot. In addition, Arata (1999) found that victims who engaged in societal blame used more cognitive coping strategies such as trying to see the situation from a different perspective, considering ways in which their behaviour was adaptive and finding out more information about sexual assault.

Furthermore, research on the impact of self-blame on recovery suggests that unlike victims of other negative life events, behavioural self-blame is not adaptive for sexual assault victims trying to take control of their lives and recovery (Frazier, 1990; 1991; Frazier & Schauben, 1994). In a study on causal attribution and depression among rape survivors seen at a hospital based rape crisis programme, Frazier (1990) found that both behavioural and characterological self-blame were associated with higher levels of depressive symptoms. Also contrary to Janoff-Bulman's earlier findings, Frazier and Schauben (1994) found both behavioural and characterological self-blame to be associated with more distress in terms of general psychological symptoms and

poorer long-term recovery among rape survivors. Frazier and Schauben (1994)'s findings indicated that those who blamed themselves reported more anxiety and hostility and greater disruptions in basic beliefs about themselves and reported less trust in the world. Furthermore, they also found that blaming the society was also strongly associated with depressive symptoms. Similarly, in examining the relationship between perceptions of control (attributions of causality) and symptoms of both long-term depression and PTSD among women who had been victims of rape or attempted rape, Regehr, Cadell, Karen, and Jansen (1999) found a significant correlation between viewing oneself as a victim type (character) and level of depression. The mal-adaptiveness of behavioural self-blame was further confirmed in a longitudinal study among female sexual assault survivors. Frazier (2003) found that survivors who reported more behavioural self-blame also reported more distress at all four time periods of measurement. Although these findings are counter to Janoff-Bulman's (1979) model, they are consistent with research on counterfactual thinking, which suggests that thinking about how a traumatic event could have been undone is associated with more distress (Davis, Lehman, Wortman, Silver & Thompson, 1995).

The recent literature on the relationship between attributions of causality has also confirmed that negative (self-blame) attributions may lead to depression and mal-adjustment. For example, Neville, Heppner, Spanierman and Clark (2004) found that greater endorsement of victim blame attributions predicted lower levels of self-esteem among Black and White college student rape survivors. Although this data did not support Janoff-Bulman's (1979) model, they suggest that attributions are strongly related to post-rape depression.

In a revision of earlier hypotheses, Janoff-Bulman (1992) later noted that it may be naïve to believe that behavioural self-blame is associated with less concurrent distress; rather, the benefits of behavioural self-blame may be apparent only at some later time when the survivor's assumptive world has been re-established. Consistent with this hypothesis, Frazier (2003) found that a decrease in behavioural self-blame over time (1 year) also was associated with decrease in distress over time.

Contrary to earlier findings that external attribution (blaming society or others) may be less harmful or even adaptive (Arata (1999; Wyatt, Notgrass & Newcomb, 1990), other research findings suggests that blaming others for bad events (external attribution of blame) also appears to be harmful (Tennen & Affleck, 1990). For example, Regehr *et al*. (1999) found a significant positive correlation between attribution of responsibility to societal factors and scores on depression (BDI) among women who had been raped. Thus suggesting that women who attributed their rape victimization to societal factors showed greater signs of depression. At the same while there is some support for the adaptiveness of external attribution, a pattern has not been clearly demonstrated in the case of sexual assault.

One other factor that has also been identified in facilitating the recovery process is the perceived control over the traumatic event. The perceived control entails the ability to control events in the world. To further advance the understanding of the role of attribution in recovery, Frazier and Schauben (1994) proposed a model of the relationships between attributions, control beliefs and long-term recovery among a sample of rape survivors. Rather than focusing on distinctions between different kinds of self-blame, the model focused on the distinction between control over the past and control over the future. Frazier and Schauben (1994) hypothesized that greater control over the future would be associated with better recovery. Consistent with their predictions, Frazier and Schauben (1994) found that rape survivors, who felt that future rapes were less likely, reported fewer symptoms and disruptions in beliefs. However, the belief that future rapes were controllable was not associated with recovery. In further exploring the relationship between attributions and perceived control and post-rape symptoms Frazier (2000) conducted a longitudinal study among rape survivors from 1 week to a year. The findings of this study indicated that all three types of attribution (i.e., behavioural, characterological and external) were associated with thinking more often about why the rape occurred and what could have been done differently (i.e., past control). The relationship between attribution measures and future control revealed that behavioural self-blame was not associated with a sense of future control. Furthermore, Frazier found

that the aspect of control was the only factor associated with lower symptom levels and better recovery.

Several research findings have expanded this thinking by explaining the control dimension within the temporal perspective (Frazier, 2002, 2003; Holman & Silver, 1998). As such, the temporal perceptions have been considered the primary context through which people understand and make sense of their life experiences (Kelly, 1995). The temporal perspective can be defined as the overall span of cognitive involvement across past, present, and future life domains. It is believed that individuals can have a temporal perspective that ranges from extended (e.g., distant past through distant future) to narrowed (e.g., immediate past and present only). As such, temporal orientation refers to cognitive involvement focused predominantly on one of the three zones (i.e., past, present, or future).

These temporal perceptions are hypothesized to create an overarching cognitive response bias that filters and interprets the meaning of personal experience. Specifically, the temporal framework postulates that past, present and future control have very different relations to measures of post-trauma adjustment. Similar to attribution about cause, perceived past control in the temporal model refers to an individual's belief that she or he had control over the occurrence of a trauma (behavioural self-blame). The temporal model also proposes that it is most adaptive to focus on aspects of an event that are in fact more controllable (present control). In the temporal model, perceived future control refers to the belief that one has control over (i.e., can prevent or avoid) the occurrence of future traumas. The model highlights the distinction between beliefs about whether negative events will happen and beliefs about personal control over future negative events. Specifically, Frazier (2002) suggests that whether negative events will recur (future likelihood), rather than whether one can personally control them (future control), matters most for adjustment. In this regard, psychologists have suggested that a future-oriented temporal perspective guides most psychological processes, and that future expectations play a critical role in maintaining mental health and well- being (Holman & Silver, 1998; Nuttin, 1985; Rothspan & Read, 1996). In particular, previous

studies of the relationship between measures of past control and adjustment to trauma have found that past control is either un-associated with distress or associated with higher distress levels (Frazier, 1990; Frazier & Schauben, 1994) among victims of rape. Frazier *et al*. (2002) concluded that it does not appear to be helpful for trauma survivors to focus on the past and on what could have been done differently. By contrast, Frazier et al. found that present control in the form of control over the recovery process was associated with lower distress levels. Future control (i.e., engaging in control behaviours to prevent future assaults) was not associated with distress levels. However, the belief that future assaults are less likely was associated with less distress. Frazier's (2003) findings support earlier assertions that different forms of perceived control have different relationships with post-trauma distress. In particular, these findings indicated that survivors who report more behavioural self-blame (i.e., attribute the assault to controllable past behaviours) also reported more distress over time. Thus, these findings are supportive of earlier findings regarding the relationship between behavioural self-blame and poorer adjustment.

3.3.2.5 COMMENTARY

The existing literature on trauma provides important insight on the factors that can facilitate the recovery process. Overall, these findings confirm that both behavioural and characterological self-blame are associated with poorer long-term recovery for rape survivors. Specifically, the correlations between these two types of attribution could be due to the fact that it is difficult to blame one's behaviour without also blaming ones' character. However, these findings suggest that while past blame does not seem to facilitate recovery, a sense of control over the future may be a more useful therapeutic strategy.

While these findings do confirm previous assertions that self-blame may not all be adaptive, they represent only part of the complex process of post-rape adjustment. The relationship between self-blame attributions and adjustment has only been confirmed in limited cultural settings. Efforts to understand how self-blame attribution styles may influence or mediate victims' psychological

reactions and the coping strategies among rape victims in South Africa have been limited. The lack of significant links in the reviewed studies may be due to methodological issues such as attribution measures and varied measures of adjustment and recovery. The impact of attributions may also differ according to a survivors' sexual assault history. Further research is therefore needed to investigate the role of attributions (internal vs. external) in enhancing coping strategies of rape victimization. Given the devastating impact of rape on victims, it is important to understand what might lead rape survivors to engage in different coping strategies. The choice of coping strategies may be explained by the survivors' attribution styles used to infer the cause for rape victimization.

3.3.3 RAPE MYTH BELIEFS

3.3.3.1 OVERVIEW

With a growing body of literature focusing on the serious problem of rape, several researchers have also focused on the impact of attitudes and beliefs supportive of sexual aggression against women. These commonly held beliefs are termed rape myths. The previous research on sexual violence hypothesized that the rape "culture" is supported by specific cultural characteristics (Koss *et al*. 1993). Lottes (1991) suggested that rape is a function of psychopathological, physiological and socio-cultural processes. Adherents to the psychopathological model suggest that rapists are pathological or have anti-social personalities. Physiological model theorists posit that rape derives from men's biological sexual nature. Within the socio-cultural perspective, rape is perceived to be the expression of a larger cultural phenomenon in which women are subordinate and coercive sexuality is accepted (Burt, 1980, 1991; Lonsway & Fitzgerald, 1994).

According to the sex role socialization theory of rape, traditional heterosexual role behaviours and rape-supportive beliefs develop as a result of sex role socialization, and help explain the occurrence of rape (Burt, 1980; Check & Malamuth, 1983). This model proposes that as a result of the developmental processes involved in learning the socially prescribed behaviours for one's sex, both males and females develop certain expectations regarding the appropriate

sex role behaviours for a sexual interaction. Males are socialized to be the sexual aggressors and females the passive targets, whose socially prescribed role is to control the extent of sexual activity. Thus, according to this theory, rape is an extreme form of traditional male-female sexual interaction rather than a sign of pathological disturbance.

Burt (1980), a pioneer in research on cultural aspects, first examined a core of cultural beliefs and attitudes about rape, which were termed rape myths. Burt defined such myths as “prejudicial, stereotyped or false beliefs about rape, rape victims and rapists”. Burt identified examples of these myths including “only bad girls get raped”, “women ask for it” and “rapists are sex-starved or insane or both”. In the first empirical examination of rape myths, Burt presented a causal model of rape myth acceptance that included background, personality, experiential, and attitudinal variables. The analysis thereof indicated a cluster of attitudinal variables linked to rape myth (traditional gender role attitudes, adversarial sexual beliefs, and acceptance of interpersonal violence). In addition, Burt (1980) found that the strongest predictor of rape myth acceptance was acceptance of interpersonal violence, a notion that force and coercion are legitimate ways to gain compliance, and specifically that they are legitimate in intimate relationships. The definition of rape myths has been suggested to also include beliefs about the causes of rape, such as beliefs that blame victims and exonerate perpetrators, but do not focus on the broad range of beliefs that people hold about the causes of rape. Examples of some of the most common rape myths that have been suggested include: “the belief that women routinely lie about rape” and that only “certain women” are raped, primarily women with “bad” reputations and those from socially marginalized or minority groups; blaming the female victim by suggesting that she asked to be raped (Burt, 1991).

Lonsway and Fitzgerald (1994) expanded this theory by proposing a modified characterization. Lonsway and Fitzgerald’s definition of rape myths focused on the myths’ cultural functions. They defined rape myth as “attitudes and beliefs that are generally false but widely and persistently held, and that serve to deny and justify male sexual aggression against women”. They argued that rape

mythology serves to justify particular cultural practices of widespread sexual victimization of women. For example, if a man endorses the myth that if a woman does not have bruises or scrapes, she cannot claim she was raped, then he might regard coercing a woman to have sex as acceptable, as long as he does not leave bruises. On the other hand, if a woman endorses the myth that only women who "sleep around" get raped, she might feel safer and think that she can avoid rape by not "sleeping around". In all, the process of justifying or denying sexual violence or personal vulnerability involves limiting which behaviours "count" as rape and blaming rape victims for their own victimization. Women may also use them to deny personal vulnerability. The research findings suggest that men and women believe in rape myths that focus attention on the victims' characteristics and behaviours (Lonsway & Fitzgerald, 1994). However, such attitudes do not differentiate female victims of sexual violence from other women (Koss, 1985; Koss & Dinero, 1989).

3.3.3.2 ACCEPTANCE OF RAPE MYTHS

Empirical work on these attitudes about rape has largely focused on the perpetrators and observers' use of such beliefs. This research suggests that acceptance of rape myths appear to vary by gender, with men more likely to support these attitudes. For example, some research findings have found that heterosexual men are likely to endorse more rape myths than women (Aromaeki, Haebich, & Lindman, 2002; Davies & McCartney, 2003; Muir, Lonsway, & Payne, 1996). Aromaeki *et al*. (2002) investigated male attitudes and behaviours related to imagined sexual aggression among Finnish men aged 16-61 years old, including incarcerated rapists. The results indicated that the younger men and rapists expressed significantly more hostility toward women and acceptance of rape myths. In addition, men have also been found to express greater acceptance of rape myths and show less empathy after a not-guilty verdict against the perpetrators. In a study designed to examine the state of rape myth acceptance among college students and factors differentiating acceptance and non-acceptance, Hinck and Thomas (1999) found that college students reported disagreement with rape myth statements. However, there were variations in the degree of disagreement. The men and

women who had not attended a rape awareness workshop expressed weaker disagreement with rape myths than women who had attended a rape awareness workshop. Similarly, Johnson, Kuck and Schander (1997) found rape myth acceptance to be related to demographic factors and gender role attitudes. Johnson *et al.* (1997) found that among undergraduate students aged 17 to 43; males accepted rape myths more than females and tended to excuse the man more than blame the woman.

A series of studies across cultural groups has also provided support for the prevalence of rape myths. This research suggests that in addition to gender, race influences attitudes toward rape. Muir, Lonsway and Payne (1996) tested the extent of rape myth acceptance among American and Scottish college students. The results of the study showed that American male and female undergraduates indicated greater acceptance of cultural rape myths than did the Scottish subjects. Similarly, UK heterosexuals who read a scenario depicting a male rape were reported to endorse more rape myths and blame the victim more than heterosexual women or gay men (Davies & McCartney, 2003). Asians have been also found to be more conservative in attitudes toward sexual behaviour and more tolerant and accepting of rape myths (Kennedy & Gorzalka, 2002). The rate of rape myth acceptance is suggested to change (decrease) with greater exposure to first world cultures (Kennedy & Gorzalka, 2002). Within the African-American culture, men have been found to be more accepting of stereotypes and myths about rape compared to African- American women (Sapp, Farell-Walter, Johnson, & Hitchcock, 1999).

3.3.3.3 RAPE MYTHS AND RAPE VICTIMS

The rape myth beliefs have been most applied to acquaintance rape rather than stranger rape (Bridges, 1991; Check & Malamuth, 1983). Bridges (1991) examined perceptions of rape by a steady dating partner as well as rapes by a first date acquaintance and stranger. Bridges (1991) found that a large variety of sex role expectations and rape–supportive beliefs are incorporated into perceptions of steady or first date rape more than with stranger rape. In addition, Bridges found that perceptions of victims' failure to control the

situation, misunderstanding between the perpetrator and victim, and the victim's desire for intercourse were emphasized more in response to date rape than stranger rape. There was a stronger tendency to incorporate rape-supportive beliefs into perceptions of date rape than stranger rape. This suggests that rape myth is more endorsed with date and or acquaintance sexual aggression. Truman, Tokar and Fischer (1996) also examined the links between masculine gender roles and date rape. The results indicated that men who endorsed more traditional gender roles also tended to hold more rape supportive attitudes and beliefs (i.e., adversarial sexual beliefs, acceptance of interpersonal violence and date rape myth acceptance). Fay (1998) found that among high school freshmen, male subjects endorsed more statements supportive of rape myths and dating violence than female subjects. Fay found that greater acceptance of rape myths was also related to greater acceptance of dating violence.

Because rape myths are so prevalent in our societies, and in South Africa in particular, it is likely that many rape victims have been exposed to these scripts and that these could affect their conceptualisation of their own experience. In exploring the impact of rape among survivors in South Africa, it is therefore critical to consider how common rape myths may affect rape victims' coping with their victimization. To date, the study of rape myth beliefs in South Africa has been mainly conducted within the health context, in particular on AIDS. The preliminary results of a study aimed to reduce the spread and impact of HIVAIDS reported that 27% of 3 000 young men between the ages of 15 and 34 years, believed that if a woman has been drinking, it is her fault if she is raped ("Men as Partners," 2004 Survey Results). Nearly half of them (42%) said that a woman who wears a miniskirt and drinks is asking for trouble, while 21% believed that a flirting woman wants sex. Consistent with Jewkes & Abrahams' (2002) discussion on the pervasive sexual entitlement among males in South Africa, 29% of the men who participated in the study on Men as Partners (2004), believed that a man needs sex with other women besides his wife. This indicates acceptance of gender role beliefs and myths about rape. These findings within the South African context also demonstrate the prevalence of rape myths, in particular the blaming of women for rape victimization.

In linking these beliefs to the impact of rape victimization, research findings suggest that the acceptance of rape attitudes interferes with the recovery process among women who have been victimized (Katz & Burt, 1988). It is reported that such women report worse outcomes than those who reject these attitudes. Given that rape myths serve to obscure the social basis of rape and locate responsibility with the women who have been victimized, it is not surprising that women who have been victims of rape would then have difficulty in dealing with the trauma of victimization.

3.3.3.4 COMMENTARY

These findings confirm that violent behaviours against women are associated with culturally supported attitudes that encourage men to feel entitled to sexual access to women, to feel superior to women or to feel that they have license as sexual aggressors. In essence, rape myths are a specific component of culturally supported attitudes that normalize rape. However, the majority of theorists have not yet empirically tested how victims' internalisation of such beliefs about the causes of rape may directly impact on their psychological trauma post-rape and / or determine post-trauma coping.

In the light of the relatively high levels of sexual violence against women in South Africa, an investigation of the role of rape myths in predicting the victims' recovery is important to help dispel the stigma of rape in our society. The perceived causes of rape matter because the society's treatment of rape victims and perpetrators, laws and other structures that adjudicate rape, and strategies to stop and prevent rape; all depend on the beliefs held about the causes of rape. Investigations into these beliefs will also help unearth and address the socio-cultural context (influential socio-cultural institutions and organizations) that shape and support gender-based sexual violence.

In South Africa there is sparse literature concentrating on the identification of rape responses, and in particular work on the psychological adjustment of survivors post-rape victimization, as well as contributory factors to the development and persistence of trauma syndromes. Whether the results of

North American studies on rape survivors' psychological and coping responses can be transferred to the South African context of victims of rape, is a question that has not been investigated adequately. In helping victims of rape deal with victimization, the focus has largely been on providing counselling and therapeutic sessions as well as support groups for victims of rape rather than on identifying the common psychological reactions of victims of rape. There has been a limited focus on understanding the symptomatic sequelae of rape, particularly pathological reactions to rape victimization. Therefore, further research is required to understand the psychological consequences of rape for survivors, and to understand how victims adapt to and eventually overcome the traumatic experience of rape victimization. Previous research suggests that some survivors of rape may present no evidence of disorder while others exhibit considerable distress that persists for a longer period. An understanding of the possible contributory factors that may mediate the effects of traumatic events and moderate the impact on victims' health is important. More importantly, examining the factors that promote victims' coping with rape victimization is important. These factors may also be important in understanding the individual differences and chronicity of symptoms among victims of rape in South Africa.

While these studies have clearly identified the various coping strategies often used by victims of rape, as well as their links to levels of distress for survivors of rape, nonetheless, the specific coping strategies relating to victims of rape as well as information on strategies that victims use at specific points in time, particularly immediately after rape, have not been adequately studied. Very little is known about how South African rape victims successfully cope with events that cannot be changed such as rape. The present study seeks to expand on the existing knowledge of coping by specifically investigating the coping styles used by victims of rape, in particular the role of approach versus avoidance coping in the adjustment of rape victims.

More specifically, the factors influencing the coping processes following rape victimization remain somewhat unclear. A review of prior research indicates a relationship between sexual assault victimization and coping. There is also evidence suggesting that victims' attributions contribute significantly in

predicting the survivors' psychological adjustment and coping with rape victimization. In particular, self-blame attributions have been associated with higher distress and lower psychological adjustment. Furthermore, research has shown a strong relationship between personality resources and adjustment. By contrast, the role of acceptance of rape myths in relation to coping by survivors of rape has received only limited attention.

In recent years, two constructs, vulnerability and resiliency, have emerged to describe the variability presented by people who have experienced stressful life events. These personality variables are commonly viewed as resources that individuals draw upon in the face of distress - being able to bounce back from adverse experiences, to avoid being affected by risk factors or otherwise to overcome developmental threats. In particular, researchers have sought to identify both external sources of resiliency, such as social support, and internal resiliency, as well as individual difference variables which may help reduce the level of negative reactions when exposed to stressful life events (Axelrod & Ryan, 2000). Specifically, investigating personality theorists and researchers have paid considerable attention to the construct of hardiness as an inner resource that may moderate and potentially diminish the negative effects of life stress on physical and mental health. The personality construct of hardiness has received extensive attention as a variable that moderates the effects of stress.

3.3.4 HARDINESS

3.3.4.1 INTRODUCTION

Basing their definition on the existential personality theory, Kobasa, Maddi and Kahn (1982) defined the construct of hardiness as a constellation of personality characteristics that function as a resistance resource in the encounter with stressful life events. According to the Hardiness Institute Manual, (1994) hardiness is defined as a personality trait that "…provides the courage to confront change or adversity and turn it to advantage instead of being debilitated by it". In this regard, hardiness is conceptualised as a stable and

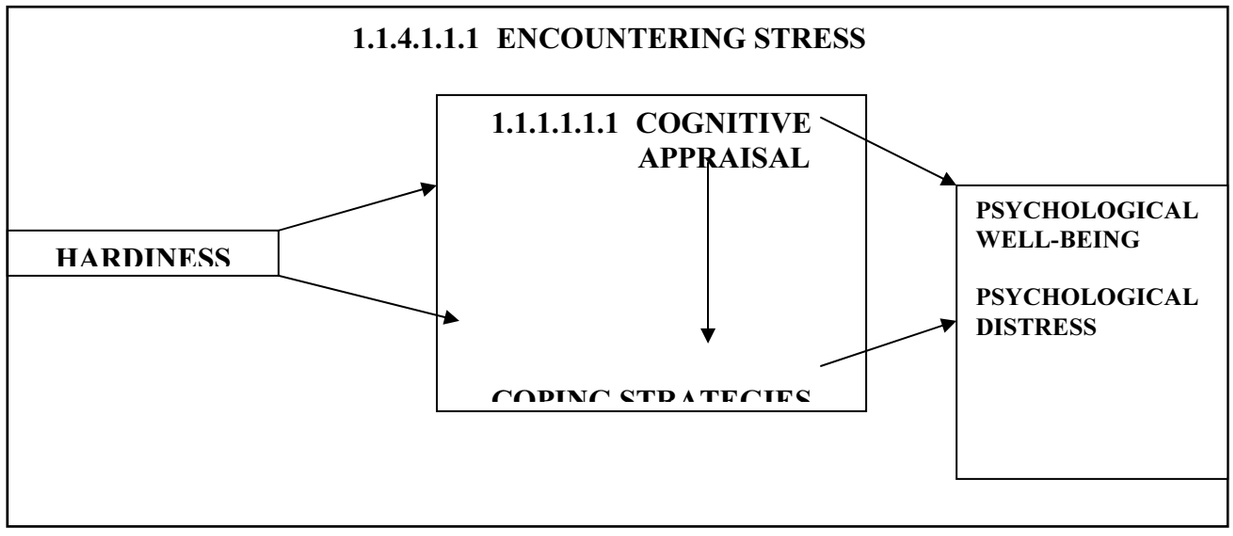
cognitive personality resource consisting of three cognitions: a sense of control, commitment, and challenge. Control (as contrasted with powerlessness) summarizes the belief in ones' ability to influence the course of events. Commitment is the belief in the importance and interest-value of oneself and one's experience or activities. Commitment captures the hardy person's curiosity about and sense of the meaningfulness of life. It is about an ability to feel deeply involved in or committed to the activities of their lives. Commitment contributes to hardiness in that their enthusiasm, curiosity and involvement enables these people to apply themselves to solve their problems persistently (Maddi & Kobasa, 1991). Challenge reflects the belief that change is normal in life and represents a challenge rather than a threat. Challenge (as opposed to threat) epitomizes the expectation that it is normal for life to change, and for development to be stimulated thereby (Kobasa, Maddi & Courington, 1981). Therefore, change represents a positive event rather than a threat. People with challenge see change as producing possibilities and they approach change as a developmental process that has value. Control is based on the belief that life experiences are predictable and controllable. People high in control have confidence in their capacity for mastery. They actively pursue problems because they see themselves as having the power to do something. These factors reflect the tendency to make adaptive interpretations when encountering a stressful event. According to Maddi (1990), persons high in commitment think of themselves and their environments as interesting and worthwhile and thus can find something in whatever they are doing that piques their curiosity and seems meaningful. Persons high in control believe that they can, through effort, have an influence on what goes on around them. And persons high in challenge believe that what improves their lives is growth through learning rather than easy comfort and security.

In essence, hardy people are easily committed to what they are doing in their lives, believe they have some control over the causes and solutions of life problems, and view changes in life and adaptive demands as challenges and opportunities for growth rather than as threats. Theoretically, such beliefs are suggested to be protective as they reduce the stressfulness of an event, resulting in diminished capacity of the stressor to affect one's wellbeing

(Kobasa, 1982). Specifically, theorists have hypothesized that hardiness might alter the perceptions of events to make them less stressful (Kobasa, 1979; Rhodewalt & Agustusdottir, 1984). In this regard, hardiness is thought to facilitate optimistic perceptions of and transformational coping with stress. Kobasa (1982) postulated that the effects of hardiness on mental health are mediated by appraisal and coping mechanisms (see Figure 1). In the appraisal process, hardy individuals are able to reframe stressful experiences in such a way that stress is reduced. There are data indicating that stress appraisal mediates the relationship between hardiness and self-reported health status. Specifically, some data indicates that hardiness influences appraisal of the same stressor differently and influences physiological responses by high and low hardy individuals. Hardy people are thought to appraise potentially stressful events differently than non-hardy people and are thought to be more resistant to the potentially harmful effects of stress (Sinclair & Tetrick, 2000). In this regard, Wiebe (1991) found that high hardy male and female graduates rated the same objective stressor (threat task) as less threatening than did low hardy subjects. The findings of the study provided evidence of the relationship between hardiness and appraisal as well as supporting the hypothesis that appraisal differences alter the effects of stress. Therefore, hardiness is a tendency to diminish the impact of stressful life events by appraising them in optimistic fashion.

The second mechanism through which hardiness moderates the negative effects of stress involves coping behaviours. It has been proposed that certain coping styles are also closely related to hardiness and may serve to mediate the hardiness-illness relationship. In terms of coping, high hardy individuals have the ability to behave in an adaptive manner once stress is perceived or experienced. By contrast, individuals low in hardiness have been hypothesized to engage in maladaptive coping strategies. These findings are therefore consistent with the hypothesis that hardiness has a positive influence on ones' general strategies for managing experienced stress. The two mechanisms (appraisal and coping) of hardiness are therefore not completely independent.

Figure 1 – "Kobasa's Mediational Model"



3.3.4.2 HARDINESS AND TRAUMA

Over the past decade, the hardiness construct has received considerable attention as a personality variable, which potentially moderates the effects of stress on physical health. Prospective and retrospective studies have examined the impact of a hardy personality on physical and mental health (Blaney & Ganellen, 1990; Strumpfer, 1990). Some of these studies have demonstrated at least a general relationship between hardiness and well-being, in particular that people with hardy personalities may be less vulnerable to the negative effects of stressful events. The findings in these studies have shown that hardiness is positively related to physical and mental health and that it mitigates negative health outcomes of stress (Florian, Mikulincer & Taubman, 1995; Kobasa, 1979; Kobasa, Maddi & Kahn, 1982; Sutker, Davis, Uddo, & Ditta, 1995). Despite contrasting views and findings on the role of the hardiness construct (as unitary phenomenon) and on the separate three constructs (commitment, challenge and control), each of the three components has been suggested to motivate adaptive coping behaviours in response to stressors. In this regard, it has been hypothesized that hardy individuals do not fall ill despite encountering stress, because they possess high levels of the three adaptive characteristics, which enables them to appraise the stressful life events in a positive and optimistic way, and thus deal decisively and effectively with the

stressors they do confront. In support of this view, research findings have showed that hardy persons experience events in a similar way to that of less hardy persons but appraise the events as less stressful and remain optimistic about their ability to cope with them (Westman, 1990; Wiebe, 1991). Moreover, high hardy individuals have been found to report less adverse affect and psycho-physiological stress responses and more positive affect in response to evaluative threats than did low hardy subjects.

Despite these findings on the role of hardiness in altering effects of stress, most research to date has focused on the relation between relatively moderate stressors (e.g., life events and job stress) and physical health. Outlined in the following paragraphs are some of the findings on the relation between hardiness and trauma.

For example, in studies with business executives, hardiness has been shown to buffer stress and to reduce the likelihood that stressful life events would result in reported physical illness symptoms. In a retrospective study, Kobasa (1979) compared two groups of executives with equally high levels of stressful life events but either high or low levels of reported previous physical illness. As predicted, the high illness group scored lower on hardiness than the low illness group, who had been equally stressed by life events, thus, confirming the theory that hardiness components are protective as they reduce the stressfulness of the event.

In relation to this, Waysman, Schwarzwald, and Solomon (2001) investigated the role of hardiness in protecting prisoners of war (POWs) from long-term negative outcomes and promoting long- term positive outcomes. Hardiness was found to be associated with lower vulnerability to negative changes among POWs. This suggests that hardiness mitigated the detrimental effects of extreme stress. In addition, hardiness was also found to be associated with higher levels of positive change among POWs.

Fairbank, Keane and Adams (1998) also used data from a national sample of Vietnam Veterans in the USAto examine the role of several post-trauma

resilience recovery factors for PTSD symptomatology among victims of the Vietnam War. In particular, Fairbank *et al*. (1998) sought to evaluate the relationships involving hardiness, additional stressful life events and current PTSD symptomatology for those experiencing varying levels of war zone stressors. Fairbank *et al*. (1998) found that hardiness (i.e., control, commitment and challenge) demonstrated a direct negative association with PTSD for both women and men. Those who scored higher on items assessing the hardiness dispositional components appeared to exhibit fewer PTSD symptoms. Furthermore, they found that for both men and women hardiness emerged as a strong predictor of PTSD when compared with other resilience factors. Hardiness was also found to have an indirect effect on PTSD through the variable of functional social support. These results are supportive of the shared assumption implying that hardiness, as a personal resource, has facilitating and enhancing functions that operate at different levels of exposure to stress.

Providing further evidence of the relationship between hardiness and stress, Florian, Mikulincer and Taubman (1995) sought to examine the contribution of hardiness to changes in mental health of individuals facing stressful situations. Specifically, Florian *et al*. (1995) assessed hardiness, appraisal and coping strategies of young Israeli men over a four-month combat training period. The results supported earlier findings on the contributory role of some of the components of the hardiness concept to mental health by means of coping and appraisal mechanisms. Florian *et al*. (1995) found that control and commitment positively contributed to well being by reducing the appraisal of threat. Commitment was found to reduce psychological distress through inhibiting the use of distant coping (e.g., “I try to forget the whole thing”). Furthermore, the findings showed a high correlation between commitment and control. Commitment and control also showed significant direct association with appraisal and coping variables whereas the challenge component did not show any significant relation to the variables.

Similar evidence on the buffering effect of hardiness has been observed specifically among sexually abused women. Women who displayed high hardiness have been found to have significantly fewer distressing symptoms. In

this regard, Feinuer, Mitchell, Harper and Dane's (1996) findings confirmed the relationship between hardiness and general adjustment in sexually abused women.

Adding to the picture, more recent studies have explored the extent of the role of hardiness in moderating the relationship between stress and health across cultural groups. For example, Kuo and Tsai (1986) explored the relationship between hardiness and mental health among Asian Americans and Asian immigrants to the northwestern U.S.A. Hardiness was found to be negatively related to depression between the Asian Americans and Asian immigrant groups including the Chinese, Filipinos and Koreans. Consistent with these findings, Dion, Dion and Pak (1992) found that personality based hardiness influenced the relationship between the experience of discrimination and reported psychological symptoms in members of Toronto's Chinese community. Specifically, they found that the relationship of experienced discrimination to psychological symptomatology was markedly higher among respondents low in hardiness than for those high in hardiness.

Contrary to these findings, other studies provide some interesting differentiations on the role of hardiness in health across various groups. Harris (2004) conducted a study to investigate the linkage between hardiness, health value and health behaviours among African-American and European American college students. Specifically, the study sought to determine the extent to which hardiness relates to participation in health-protective behaviours. Harris (2004) found that hardiness, control, and commitment were associated with a high frequency of anxiety, anger, depression and stress as reflected by high scores on personal distress among African -American students. Contrarily, the results suggested that composite hardiness (commitment, control and challenge); commitment and control were associated with a low frequency of anxiety, anger, depression and stress among Euro-Americans. This suggests some potential cultural differences in the effects of hardiness. These findings suggest that while the role of hardiness may be confirmed for Euro-Americans, there may also be boundary conditions for the stress-buffering effect of hardiness in minority group members such as the African -American group.

3.3.4.3 COMMENTARY

The findings from various studies present some useful insights on the relationship between hardiness construct and trauma. There are some interesting patterns in terms of the role of hardiness in relation to trauma and stress. It seems from these findings that the difference between hardy and less hardy people is in their perception of events (appraisal), and in the way they transform an objective event into a psychological event. The findings provide some evidence that through an adaptive stress appraisal, hardiness moderates stress. Hardiness is associated with lower vulnerability to negative changes and, as such, it may be conceived as a protective factor, which promotes the ability of individuals to experience high levels of positive change following traumatic events. Interestingly, there may also be boundary conditions for the stress-buffering effect of hardiness in other cultural groups, particularly among African Americans. The data presented in the preceding paragraphs indicate that hardiness measured by the composite score influences stress appraisal, but makes generalizations across cultural groups questionable. These findings underscore the importance of broadening the scope of highly adverse situations to explore further the role of hardiness in moderating stress.

3.3.4.4 PROBLEMS WITH HARDINESS

Although research has produced some support for the model as proposed by Kobasa (1979), neither of these links has been unequivocally established. Despite the accumulation of construct-validational evidence suggesting that hardiness may constitute a reasonable measure of mental health, studies exploring the relationship between hardiness and stress offer inconsistent findings. The inconsistencies in the results stem from different issues, namely, the measurement of hardiness; the overlap between hardiness and neuroticism; and the issue surrounding the hardiness constructs as a unitary phenomenon or three separate constructs.

Central to the criticisms on measurement has been the concern regarding the use of negative items on the original Hardiness Scale. In this regard, research suggests that such negative indices may tap general maladjustment or personality traits other than hardiness (Funk and Houston, 1987), which may then result in response inconsistencies within a scale. For instance, if a negatively worded item is embedded in a list of positive items, some individuals may miss the negative wording cues. Thus, people may inadvertently respond to negative items as if they were positive. The reliance on negatively worded items then brings to question what hardiness scales measure and certainly threatens the internal validity of the instrument.

A second concern with hardiness is that hardiness measures may be confounded with neuroticism. Due to reliance on negatively worded items that are similar in content to measures of neuroticism, several studies suggest that neuroticism and hardiness are related and that the hardiness scale inadvertently measures neuroticism (Funk, 1992; Oulette, 1993). The concern has been that hardiness measures may be confounded with maladjustment or neuroticism (Florian *et al*., 1995; Funk, 1992). This relationship between hardiness and neuroticism is suggested to be stronger for negatively worded items. Providing an answer to the ambiguity concerning the nature of the relationship between hardiness and neuroticism, Sinclair and Tetrick (2000) confirmed the distinctiveness of hardiness and neuroticism. Specifically, the findings confirmed the distinctiveness of positively worded hardiness items and neuroticism. However, the results also suggested that negatively worded items may be redundant with neuroticism.

The other criticism of the hardiness model concerns the treatment of hardiness as uni-dimensional and the conceptualisation of hardiness as a three-constellation model with each component contributing equally to mental health. The majority of studies appear to support the conceptualization of hardiness as a multi-dimensional construct in which different facets obtain different relationships with health and any other criteria. This is a very important step in the conceptualization of hardiness, as this helps us to understand which dimensions are important and whether there are any differences between the

dimensions. It is likely that when the distinct dimensions are combined, researchers may lose substantial information for understanding relationships across the dimensions. Therefore, it is important that the components of a multi-dimensional construct such as hardiness be examined in different ways.

While numerous studies have provided evidence of the relationship between hardiness and health, the stress-buffering hypothesis has been questioned. This is due to lack of empirical support for the hypothesized stress-buffering effect of hardiness. In this regard, research findings have suggested that the stress moderating effects of hardiness often disappear when neuroticism is controlled. Despite the level of distinctiveness between hardiness and neuroticism, several of the findings have differed for positive and negative items of the hardiness scale. In this regard the buffering effect of hardiness has been found for the positive items but not the negative items (Sinclair & Tetrick, 2000). This suggests a two-process view of hardiness, as responses to positive and negative hardiness items may reflect two separate underlying processes.

3.4 COMMENTARY

While the results discussed here point to the influence of intrapersonal resource variables (hardiness), they still do not address specifically how these resources may influence psychological reactions and coping strategies used by victims of rape. This research has not adequately researched how personality characteristics can influence the causal process or attribution styles among victims of stressful life events such as rape. A study on the mediating role of personality factors responsible for variation in how people react to the same stressful life event is essential because it represents a powerful alternative explanation for individual differences in coping and adjustment among victims of rape.

Unfortunately, although numerous studies have investigated the relationship between hardiness and stress, according to an extensive literature review that the present research conducted, none have yet attempted to explore and identify the role of hardiness as a resistance resource among rape victimization.

Specifically, little attention has been focused on the relationship between hardiness and the psychological response and coping with rape victimization, in the South African population of victims. The aim of this study is to try to fill this gap by investigating the role of hardiness in predicting black (African) female rape survivors' coping with rape victimization. The present study represents an attempt to clarify the potential contribution of hardiness among other factors as a resilience factor to the process of coping with rape victimization among South African women. It will be determined whether the hardiness construct's effect on stress will hold for rape victims and predict the psychological impact and coping styles. This brings the construct of hardiness to bear on a different group in a different cultural setting.

3.5 THE PRESENT RESEARCH

Building on various research models of rape victimization and a number of sexual assault specific models, the present study seeks to expand the existing knowledge about the range of variables that may affect victims' reactions immediately post-rape. In this study, rape is behaviourally defined as unwanted, forced, or coerced vaginal or anal penetration. The major purpose of the present study is to determine how methods of coping with rape victimization are related to the extent of assault severity, intrapersonal resources, to acceptance of sex role beliefs, attribution styles and psychological responses. Contrary to previous studies that have looked at coping with rape victimization as a function of psychological adjustment or rather view psychological impact as a consequence of coping, the present study was designed to assess the relationship between all the variables in predicting coping styles. Therefore, the outcome measure in this study is coping.

The proposed conceptual model is designed to help contextualize rape and the women's recovery processes as well as to assist in the organization of data on direct and indirect factors that influence post-rape adjustment and coping. This is tested in a model whereby the interrelationships among assault severity in rape victimization, the intrapersonal resource of hardiness, sex role beliefs, attribution and psychological response and coping styles are examined. The

model depicts the direct and indirect influences of the five previously identified components on coping with rape victimization. All of the identified variables have been suggested to influence the survivors' psychological response and coping with rape victimization. In this regard, the model purports that coping with rape victimization is influenced by the extent of assault severity during rape victimization as well as a function of survivors' attribution of victimization and psychological response to rape victimization. Survivors' hardy personality and acceptance of rape myth beliefs are also proposed to influence coping with rape victimization.

A review of prior research indicates that some aspects of the proposed model have been tested extensively. Other aspects of the model, by contrast, have received only limited attention. There is substantial evidence, for example, that self-blame attributions are more prevalent among victims of rape (Frazier, 2000; 2002, 2003; Janoff-Bulman, 1992; Neville et al., 2004). For example, the relationship between attribution and psychological adjustment has been perhaps mostly explored in studies of rape. Based on Janoff-Bulman's (1979, 1992) influential model, these studies have identified the two attributional styles of behavioural self-blame and the characterological self-blame as the cognitive appraisals that impact on post-rape adjustment. Particularly, previous research has shown that women who attribute blame for the rape to internal factors such as their own character or behaviour are more likely to experience significant levels of post-rape distress (Koss et al., 2002). Therefore, for the event of rape, no form of self-blame appears to be adaptive. Thus, one reason why victims of rape may experience more distress than others is that they are more likely to blame themselves. While the research has focused on the relationship between victims' attributions of blame with psychological symptoms, none of the studies have examined the association of victims' attributions of blame with coping strategies among African victims of rape within South Africa. The studies have been limited to samples within the western countries rather than within the South African context. The present study investigated the relationship between victims' attributions and coping. Specifically, this study examined the extent to which victims' attributions influenced victims' coping styles. In this regard,

coping is viewed as a process by which people seek to manage challenging and threatfull situation.

Other studies have also examined the mediating role of coping on post-rape adjustment. Various studies suggest that one factor that may also influence recovery is the type of coping strategy used by a victim following rape. The two most common forms of coping include avoidance and approach coping strategies. In this regard, coping strategies used by rape victims in the aftermath of rape are associated with post-rape adjustment (Frazier & Burnett, 1994). Specifically, there is also evidence suggesting that victims of stressful life-events such as rape are more likely to report using emotion-avoidance as well as task-approach coping strategies (Arata, 1999; Frazier & Burnett, 1994; Neville *et al*., 2004; Santello & Leitenberg, 1993). Specifically, most studies suggest that avoidance coping strategies are associated with greater psychological symptomatology, whereas approach coping strategies are either unrelated or positively related to symptomatology. Particularly, the use of emotion-avoidant coping strategies has been related to poor adjustment across a number of different studies. By contrast, approach-task oriented coping strategies have been related to better adjustment following stressful life-events. Despite this evidence, there is limited information available depicting the role of psychological impact and the combination of other variables in predicting coping. In the present study, we examined the extent to which victims' psychological responses to rape victimization related to their coping strategies post-rape.

The mounting research investigating psychological responses to rape victimization, suggests that rape produces one of the highest rates of post-traumatic stress disorder. Female victims of assault often show a characteristic profile of symptoms that includes avoidance, re-experiencing of the trauma and anxious arousal (Foa & Riggs, 1995). The three PTSD responses of Intrusion, Avoidance and Hyperarousal are used in this study as indicators of the psychological impact of rape victimization. While the majority of studies have examined coping in relation to psychological adjustment, the present study suggests that psychological response is related to coping, thus making coping

the outcome variable (Frazier & Burnett, 1994; Frazier et al., 2004). In this regard coping is hypothesized to be influenced by a number of factors, including psychological impact. Therefore, the present study investigates whether psychological impact has a direct influence on coping. As with previous research, coping is defined in terms of the two forms of approach or task focused coping and avoidance or emotion focused coping strategies.

Several previous studies have also found links between the rape context (specifically severity of assault) and recovery. These studies have found a relationship between greater severity of assault and more psychological distress (Wyatt, 1990). In particular, these studies have found rape characteristics such as assault severity to have an influence on the survivors' physical symptoms (Koss, Koss, & Woodruff, 1991). These studies have also indicated assault severity would influence survivors' attribution (Koss *et al*., 2002). In the present study the rape severity was defined in terms of force (physical) and the presence of weapons during the assault.

Like coping, intrapersonal resources in the form of hardiness are likely to play an important role in the life stress psychological and physical health equation. Hardiness has been found to mitigate the negative effects of stress in relation to illness (Kobasa, 1979). Variables such as hardiness have in some studies been suggested to buffer an individual against the effects of negative life events or stress. However, the majority of these studies have been on moderate stressors none of these studies have focused on the role of hardiness in the coping of rape survivors. The present study investigated the role of the three sub-components of the hardiness measure (Control, Commitment and Challenge) in influencing coping with rape victimization.

An important point frequently overlooked in rape research, however, is that of the relationship between acceptance of rape myth beliefs and coping by victims of rape. Most of the studies have examined the different attitudes (rape myth beliefs) reported by observers and the extent to which these are used to explain types of rape (stranger vs. acquaintance), but little is known about how victims' acceptance of rape myth beliefs can impact on their psychological responses

and coping post-rape victimization. The present study examined the extent to which victims' acceptance of rape myths influenced coping with rape victimization.

Despite the wealth of research on various aspects of the hypothesized model, much of the evidence is based on studies that used purely cross-sectional designs, thereby allowing only the weakest of causal inferences. Most of these studies have examined particular components of the model, rather than the full model. The hypothesized and tested intervening levels of mediation in emotional processing and coping are important in understanding responses of rape victims in the present study. Nevertheless, there is still limited understanding of the role of these factors in predicting coping among rape survivors in the urban and non-urban townships of South Africa. In summary, this study investigated the mediating role of assault severity, attribution, personality, rape myth beliefs and the psychological impact on coping of survivors of rape in the three provinces (out of the total of nine) of Gauteng, Western Cape and Limpopo (Venda) provinces. Despite empirical support for the interrelationship among factors of the model, no attempt has been made to empirically assess the utility of these variables within the South African context and specifically among a sample of African women survivors of rape.

It is perhaps important to note that the installation of a democratic government ushered in a group of policies and measures designed to promote the well being of women in South Africa. Despite this commitment and support, the position of women, in particular those living in the townships and rural areas have remained one of considerable concern. In the transition to democracy violence has shifted from state sponsored attacks on opponents of apartheid, to politically motivated inter ethnic conflict as well as violence classified as familial and criminal. As such, African women living in the townships have become victims of this violence. South African townships in both urban and rural areas are violence-ridden places, in which ordinary people make their lives but in which powerful forces also continue to create ungovernability. The effects of poverty and unemployment make the situation worse for Black women. In this regard, the social context of the African women is characterized by deprivation,

poverty, abuse and pervasive traditional attitudes toward women's social and gender roles. Specifically, in the impoverished rural areas such as Limpopo province there is still a strong socio-cultural mechanism and system of gender inequality, which emphasises that women, must submit to their men in all respect. These are also communities more likely to endorse greater adherence to rape myths and acceptance of social norms on issues pertaining to domestic violence. In situations of poverty, unemployment and displacement, women are at an increased risk for sexual exploitation. Locally and internationally, it has been well documented that women's risk for exploitation is heightened, in particular due to their lesser social and economic status. Given these complexities underlying present -day township life and culture, understanding factors relating to coping among rape survivors in these communities is critical.

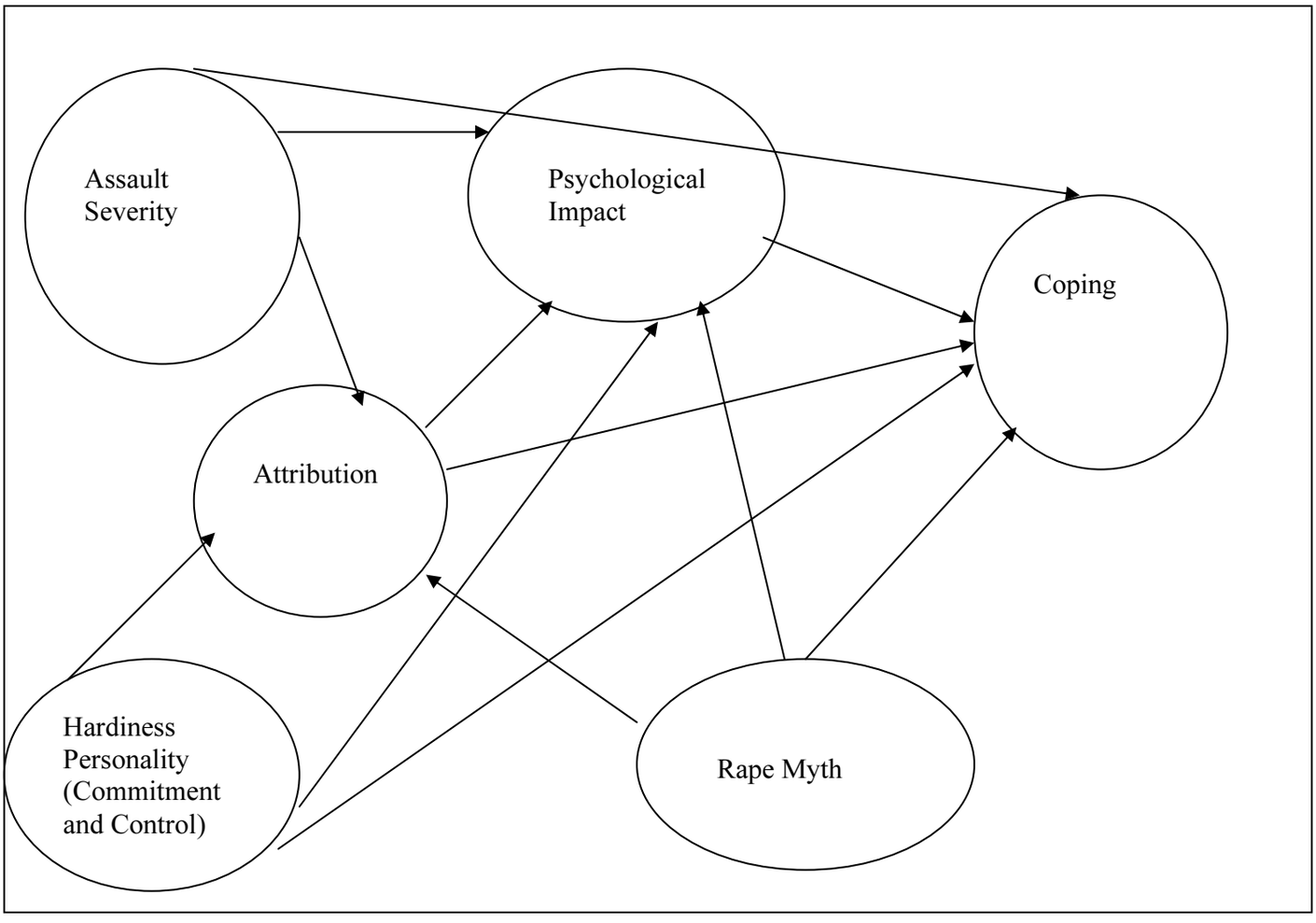
The primary goal of the current study is to test the theoretical model displayed in Figure 2 within the context of coping with rape victimization. While this is not the first study to test victims' response to rape victimization, it is the first to test all the components in this model among survivors of rape in South Africa. Consistent with the extant theory on coping, in the present study coping is described within the context of coping styles. In the present study, approach coping is viewed within the context of behavioural strategies that are oriented toward preventing future victimization. By contrast, avoidance coping is defined as strategies (behavioural, cognitive and emotional) oriented away from threat. The model proposed in the present study provides a framework for understanding individual differences and commonalities in response patterns of rape survivors.

3.6 HYPOTHESIZED MODEL

As indicated in the preceding chapters, the proposed model will provide information on the role of assault severity, hardiness (commitment and control) and rape myth beliefs on the psychological response and coping of rape survivors. One factor that has a proven track record in mitigating the relationship between rape and psychological impact and coping, is attributions. The model will determine whether assault severity during rape, victims'

commitment and control (hardiness) and acceptance of sex roles, influences the victims' psychological response and coping styles via an indirect process (attribution) or in a more direct fashion. In the following paragraphs the hypothesized models are presented and discussed as they relate to the research questions developed for this study. A summary of the hypotheses is also included.

Figure 2: A conceptual model of relationships between assault severity, attribution, personality, and sex-role beliefs on psychological impact and coping strategies.



3.7 THEORETICAL MODEL

Overview: Theoretically this research attempts to answer the following major research questions:

1. What is the impact of assault severity, commitment and control, rape myth beliefs, attribution styles, on psychological response and coping styles?
2. How does assault severity influence survivors' coping styles?
    a. Is the influence primarily direct or indirect?
    b. If indirect, does this influence occur through personality (commitment and control), through acceptance of rape myth beliefs, through attribution and / or victims' psychological response?
3. How does assault severity influence survivors' psychological response?
    a. Is the influence primarily direct or indirect
    b. If indirect, does this influence occur through commitment and control, acceptance of rape myth beliefs and through attribution?
4. How do the control and commitment personality traits influence coping?
    a. Is the influence primarily direct or indirect?
    b. If indirect, does this influence occur through attribution and / or through victims' psychological response?
5. How do the victims' acceptance of rape myths influence coping
    a. Is the influence through victims' psychological response?
6. How does attribution influence survivors' coping?
    a. Is the influence through victims' psychological response?
7. How does psychological response influence survivors' coping?

To fully explore and potentially arrive at the most plausible answers to the research questions, the model of coping was investigated (see Figure 1).

3.7.1 HYPOTHESES

The following hypotheses are tested in answer to the questions:

H1. We hypothesized that the severity of assault as determined by either the use of physical force and / or the presence of a weapon would have a direct impact on survivors' coping.

H2. Assault severity will have an indirect relationship to coping styles through its influence on attribution and psychological impact.

H3. Assault severity will have a direct influence on victims' psychological response.

H4. Assault severity will have a direct influence on victims' attribution

H5. The victims' attributions in turn, were hypothesized to affect the survivors' psychological response to victimization.

H6. Individual's personality resources (commitment and control) were hypothesized to influence the types of attributions victims infer.

H7. Personality resources will have a direct influence on victims' coping strategies.

H8. Personality will have a direct influence on victims' psychological responses

H9. The victims' acceptance of rape myth beliefs will directly influence coping

H10. Acceptance of rape myth beliefs will directly influence victims' psychological responses.

H11. Acceptance of rape myth beliefs will directly influence victims' attributions.

In addition, there were several secondary goals of this study. First, we sought to describe the attribution styles that women report using subsequent to rape victimization, as well as the effectiveness of these attribution styles in coping with rape. Because rape is a life event that cannot be undone or changed, it may pose unique demands on the individual. In addition, this study sought to describe the coping strategies that women report using following rape. Another secondary goal was to determine the influence of hardiness personality traits defined in terms of Control, Commitment and Challenge, on the types of attributions victims infer. Another was to determine the extent to which women survivors accepted rape myth beliefs.

3.7.2 COMMENTARY

The design of this study has improved in several ways on those of prior studies of coping with stressful life events in general. Many past studies on coping processes have investigated how individuals cope with self-selected stressful life events. The present study examined the impact of rape severity, attribution, psychological reactions and coping strategies in the context of a single event that women had faced within a given period. The proposed model is fully developmental in that it presents the potential process through which coping may occur among victims of rape. Generally, the model suggests that collectively and in tandem, rape severity, attribution, personality, sex role beliefs and psychological factors contribute to the coping process. The model further implies that some of these variables make explicit and direct contributions, whilst others make indirect contributions that must be revealed. In this regard, the model begins with assault severity, which affects attribution styles for rape victimization. Both of these variables affect the psychological response to rape, or experiencing of hyperarousal, avoidance and intrusion, which in turn directly impacts on coping styles for rape victimization.

As discussed in the previous chapters, the literature does support the notion of direct and indirect relationships between some of the variables. A review of the research has revealed support for the linkages between assault severity and victims' psychological response and coping with rape. In the area of attribution, internal attribution styles (behavioural and characterological attribution) have been suggested to be most common among rape victims. However, none of these studies have specifically investigated the role of all these variables in predicting coping. The present study examined the extent to which each of the variables directly and indirectly have an impact on coping strategies.

Chapter 4
Research Method

4.1 DATA SOURCE

The study draws its sample from three rape victim support programmes namely, Thuthuzela Care Centre at Jooste Hospital in Manenberg (Western Cape), the Forum for the Empowerment of Women in the Gauteng region and from the Thohoyandou Victim Empowerment Centre at Chilidzeni Hospital (Limpopo). All three centres allowed the author to access their client database for study recruitment. The three institutions represent some of the largest data sets available for studying the phenomenon of rape in South African communities, in particular, rape violence in the townships. Data collection took place in all three areas from November 2003 – May 2004. All victims who participated in this study had been assaulted within 30 days of the interview. All participants in this study would have been referred to the centre for counselling services after having reported the rape incident to the emergency room officials and the police. Eligibility for the study was determined through an interview with the medical nurse, the social worker and the trained counsellor. All participants were recruited on the basis of confirmation with the medical practitioner's report that they were raped. The research assistants arranged interviews at a time and place convenient to the interviewee. The majority of the interviews took place at the respondents' homes.

4.1.1 SAMPLE

The participants in this study comprised of 250 female victims of rape. All respondents were African (black). Female rape victims from the Limpopo province comprised the overwhelming majority of participants in this study (n = 133) and there was an almost equal representation from the Gauteng (n = 61) and the Western Cape (n = 56). The high numbers of participants from Limpopo was influenced by the volumes in the number of women who reported rape and were seen at Chilidzeni Hospital during the months of the investigation of the present study.

4.2 MEASURES

4.2.1 DEMOGRAPHIC INFORMATION

Assessments in this study included standardized self-report measures. A structured face-to-face interview questionnaire was designed to collect information across several domains including demographic and familial variables (e.g., age, marital status, parenthood) as well as information relating to previous history of rape. Factors relating to coping (the psychological impact - Avoidance, Intrusion and Hyperarousal); assault severity; personality; rape myths and attribution styles) were also included. As depicted above, the demographic form used standard demographic questions to assess age, gender, occupation, income and marital status. A complete list of items and questions on all the measurements is located in Appendix A.

4.2.2 PRIOR RAPE VICTIMIZATION

Data on the lifetime history occurrence of rape and the recent rape incident was obtained using two questions focusing on the previous assault and the context of the recent assault (in terms of relationship with the offender and severity of assault). The information pertaining to prior victimization was assessed through asking respondents (a) whether they had previously been pressured or forced to have sexual contact when they did not want to (yes = 1, no=0).

4.2.3 ASSAULT SEVERITY

Information relating to various characteristics of the rape assault was obtained from the respondents. An assault severity assessment was created by asking the rape survivors to report on several indicators of the severity of the recent rape, namely, physical force and type of force and also if a weapon was used. The respondents were asked to indicate if physical force was used (yes=1, no =0). If the perpetrator had twisted the victim's arm, or had hit and slapped the victim. To specifically measure the level of severity, victim respondents were also asked to indicate if a weapon (gun and or knife) was used during the assault. These items have been extracted from other scholars work (Frazier, 1990; Wyatt, Lawrence, Vodoumon, & Ray, 1992). These researchers have

used a summated score across a number of severity indexes as an indicator of assault severity (Ullman, 1996).

4.2.4 ATTRIBUTIONS

Victim attributions of blame were assessed using 15 attributional statements taken from prior research on rape victim attributions (Frazier 1990; Meyer & Taylor, 1986). The scale, initially devised by Meyer and Taylor (1986) and replicated by Frazier (1990) was designed to establish the attributions of causality made by women about a sexual assault perpetrated against them. Victims made ratings of attributional statements on a 5-point Likert-type scale ranging from 1 (not at all blame) to 5 (completely blame). Frazier (1990) found a three- factor solution for the 15 attribution statements, accounting for 40% of the variance. The reliability coefficient (as measured by Cronbach, α) of the attribution style subscales has generally been high among a broad range of groups. The Cronbach alphas for the three sub-scales are as follows: Behavioural blame scale α =. 79–87 (Frazier, 1990,2003); Characterological α =. 64 and the External blame α =. 71 (Meyer & Taylor, 1986).

4.2.5 INTRAPERSONAL RESOURCES: HARDINESS SCALES

A variety of indicators and methods in previous studies have been used to assess hardiness. In the present study, the personality measurement used is based on the Hardiness Construct, which measures three interrelated components: Commitment, Control and Challenge. This study employed the thirteen measures of Hardiness and adaptation based on the two Third-Generation Scales, namely, the Dispositional Resilience Scale (DRS) and the Personal View Scale (Bartone, Ursano, Wright, & Ingraham, 1989; King, King, Fairbank, Keane, & Adams, 1998; Maddi, 1987) that have been used to serve as indicators of hardiness. This self-report questionnaire is composed of both negative and positive items. The items reflected the three core elements of hardiness proposed by Kobasa (1979): (a) control (e.g., “No matter how hard I try, my efforts will accomplish nothing”); (b) commitment (e.g. “I really look forward to doing my daily routine”); and (c) challenge (e.g., “I feel uncomfortable if I have to make any changes in my everyday schedule or a schedule that I

have set for myself"), reverse scored. Participants were given a series of statements and asked to indicate their level of agreement with each one on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). The score was calculated based on their responses on the three subscales. Higher scores (agreement) reflected greater hardiness than low scores (disagreement). Previous studies have demonstrated adequate internal consistency for the three hardiness subscales - .78 for the commitment items, .84 for the control items, and .75 for the challenge items (Florian *et al*, 1995; King *et al*, 1998).

The control, commitment, and challenge scales have 5, 4, and 4 items, respectively. All 5 items within the control dimension are in one direction (negative). Two items on the commitment dimension are negatively worded and needed to be reverse-coded (items 6 & 7). Of the four challenge items, one is negatively worded and thus needs to be reverse-coded (item 12).

4.2.6 RAPE MYTH BELIEFS- RAPE MYTH SCALE

The Rape Myth Scale (Lonsway & Fitzgerald, 1995) was used to measure the survivors' acceptance of attitudes and generally false beliefs about rape. The scale contained 19 positively worded statements. The victims of rape responded to each statement on a 5-point scale (ranging from 1 = strongly disagree to 5 = strongly agree). Agreement with each statement indicated endorsement of the myth with higher scores indicating greater acceptance of rape myths. The previous alpha co-efficient for the Rape Myth Scale was reported at α = .89 (Lonsway & Fitzgerald, 1995).

4.2.7 PSYCHOLOGICAL IMPACT – IES (R)

The psychological impact of rape victimization among rape survivors was assessed in terms of the symptoms of The Revised Impact of Events Scale (IES –R), a self-report measure which has been used to document the psychological responses in life-threatening circumstances such as in criminal victimization and reactions to rape (Weiss & Marmar, 1997). This scale has 22 items, which summarizes the impact of trauma on three dimensions: intrusion, avoidance and hyperarousal. The items correspond to the DSM III & DSM IV symptoms of

intrusion (re-experiencing) and avoidance (See Appendix A). Intrusion is a measure characterized by distressing thoughts, feelings and nightmares. Avoidant thinking and behaviour as well as psychic numbing characterize avoidance. Hyperarousal targets the domains of anger and irritability; jumpiness and exaggerated startle response; trouble concentrating; psycho-physiological arousal upon exposure to reminders; and hypervigilance.

It is important to note that the IES-R was used more as a measure of post-rape trauma symptoms than as a diagnostic measure. For each item, respondents selected one of the five symptom statements ranging from 0-4 (ordered in increasing severity) that best described their feelings during the past month, with 0 = Not at all and 4 = Extremely. The higher the score, the greater the distress indicated by the symptom. Past research has demonstrated the reliability and validity of the IES-R. The alpha coefficient found on Intrusion α =. 67 -. 87; Avoidance α = .62-.85 and Hyperarousal α = .64-.79 (Dyregrov, Gupta, Gjestad & Mukanoheli, 2000; Weiss & Marmar, 1997)

4.2.8 COPING

The survivors' coping styles or strategies were assessed through their responses to 20 statements about their attitudes and behaviours after the rape. The checklist of coping strategies was developed from previous observations of victims of rape (Frazier & Burnett, 1994). The respondents rated the specific statements (e.g., I always check my door before opening) with 1 = completely false to 5 = completely true). These items were chosen for the present study because they had significant previous loadings with alpha coefficient ranging from .44-.75 (Frazier & Burnett, 1994). When combined into scales, Frazier and Burnett (1994) found the items to represent 8 different coping strategies: Stay home (e.g., Rarely leave house, Only leave house when have to); Precaution at home (e.g., Always checking door before opening, Keeping all doors locked, Walk with keys); Keep busy (e.g., Keep myself busy with work and or school, Keep myself very busy); Think positive (e.g., Try to keep my mind on positive thoughts, Strongest feeling is I'm glad to be alive); Suppression (e.g., Best thing is to put rape behind you, Try not to think about the rape); Precaution Outside

(e.g., I am always certain to lock every possible opening wherever I am); Worst experience (e.g., Can't imagine anything worse, This was the worst experience I ever had); and Withdraw (e.g., Pretend I'm not home when someone knocks, Sometimes I don't answer the phone).

In line with theoretical dimensions of coping, Frazier and Burnett (1994) suggested that these behaviours involve approaching the problem to prevent further victimization (Precaution at Home, Stay Home) and are also emotion-avoidant focused (e.g., Suppression, Keep Busy, Think Positive, Withdraw). It was therefore considered that the current research could reveal the two dimensions of coping, primarily the approach-task focused coping and emotion-avoidance coping strategies based on these sub-scales suggested to represent the two coping strategies.

4.3 PROCEDURE

Permission was granted by the Provincial Health Departments of Gauteng, Limpopo and Western Cape to approach the rape victim centres affiliated with the hospital (see Appendix A-1 for the letter of approval). For the Gauteng sample, permission to conduct the study was obtained from the Forum for the Empowerment of Women, part of the MASK organisation. At each of the three counselling centres, the trauma counsellors and social worker solicited participation from the sexual assault victims. After a complete description of the study and assuring confidentiality to the participants, each woman electing to participate was asked to sign the informed consent form giving permission to our research assistants to contact them. Three research assistants assisted with the recruitment and interviews in the three provinces. With the exception of Limpopo, where a male trauma social worker conducted the interviews, two female interviewers conducted the interviews. Two of the research assistants (Limpopo and Gauteng) have extensive experience and background in gender-related matters. One is a trained social worker working with victims of trauma including rape. The Gauteng research assistant is a trained counsellor on gender-based violence. The research assistant who recruited and conducted

interviews in Cape Town is an honours' student of psychology and has previous medical research experience.

The voluntary nature of participation was explained to each participant. The participants were also encouraged to call the researcher with any questions while completing the survey or after the interview with the research assistant. It was also stated that study findings would only be used for research purposes and would in no way affect the women's status at the counselling centre or their livelihoods. Researchers arranged appointments by telephone. To increase the likelihood that respondents answered questions in an open and honest manner, the respondents were offered the choice of having the interviews done at their homes or at the counselling centre (for which transportation costs would be provided to them). The assessments were conducted within 30 days after the assault. Assessments lasted approximately 40 minutes to one hour. The interviews were conducted in English, or siVenda, based on each participant's preference.

A self-explanatory questionnaire developed in English was used. The questionnaire was back-translated into isiVenda by Kennedy Sivhaga, a native speaker of the language (see Appendix A2 for a copy of the different language version). This serves to ensure that all participants in the Limpopo region, in particular Venda-speakers, were able to complete the survey in the language they felt most comfortable with. Respondents in Gauteng and the Western Cape were comfortable to complete the survey in English. After a brief introduction to the purposes of the study, the respondents were asked to respond to each of the measurements under the guidance and supervision of the research assistants. The respondents were all able to self-complete the questionnaire in the presence of the research assistant. On completion of the interviews, all participants were debriefed, thanked and provided with resources to acquire additional information about the issues involved in the study.

Ongoing supervision consisted of random visits at the centre as well as a quality reviewing of every protocol that included re-contacting the participant to complete missing information. As the identifier list with participant's names and

identification numbers was kept to enable participants to be re-contacted for scheduling of assessment, the subject identification list was destroyed on completion of data collection in order to protect confidentiality, ensuring that study records could not be linked with individual participants' names.

4.4 ETHICAL CONSIDERATIONS

The author was sensitive to the ethical concerns posed in working with traumatized human subjects. Signed informed consents forms were obtained for the interviews. The information sheet assured confidentiality and anonymity of responses. The interviewers were trained to secure the safety of the women during the interview, including non-disclosure of the true focus of the study to any person other than the interviewee. The issues pertaining to name referral and possible publication of the findings were discussed with each interviewee. Despite the fact that it had already been one month since the incident, it was anticipated that the discussions on the rape incident might prove emotionally distressing to the respondents. In this regard, an agreement was reached with each of the counselling centres that interviewers would provide the respondents with the option for therapeutic referral, if the respondents deemed this necessary. At the end of each interview, the researcher spent some time discussing with the respondents how they had experienced the process of the interview and their feelings. The majority of the respondents expressed interest in the study. The respondents appreciated the researchers' efforts in allowing them to conduct the study in their homes. This for some had a calming effect, as they felt free to express themselves and answer questions comfortably. The ethical clearance on the study design and measurements was gained from the University of Cape Town's Faculty of Health Sciences Research Ethics Committee (Ref. 143/2004).

4.5 DATA ANALYSIS

The results are presented in two parts: preliminary psychometric analysis and statistical approach. The preliminary psychometric analysis describes the process through which some of the measures were developed and confirmed.

The statistical approach presents first the general background on the statistical strategy used in this study – Structural Equation Modelling (SEM) – followed by a discussion of how SEM was used in this study. The preliminary analyses were performed with *SPSS for Windows, Release 12.0.1.* Analyses were conducted in three stages. First the descriptive analysis for posttraumatic symptoms, assault severity, personality, rape myth beliefs, and attribution style and coping strategies were computed. The analyses also comprised of a presentation of the results relating to the structure and consistency of all measures in the study, as well as the presentation of the descriptive findings. Confirmatory analyses were conducted using LISREL 7.20 program (Jöreskog & Sörbom, 1991) to determine the structures of all the scales (see Appendix B for complete results from factor analysis and intercorrelations). The analyses on the variables and construction of the scales included both theoretical and empirical provisions. The following chapter presents the summary of the results of the analyses.

CHAPTER 5

RESULTS

5.1 Introduction

The first part of this study presents a descriptive profile of the respondents followed by the Confirmatory Factor Analysis (CFA) on all the respective measures and a summary of the descriptive statistics. The second part of the chapter discusses the model in terms of overall fit and addresses the hypotheses outlined in the structural model. This chapter concludes with a summary of key findings for the study.

5.1.1 SAMPLE

All 250 respondents were female with average age being 26.45 years (range 18-65 years). Almost equal numbers of women who participated in the study were either unemployed or full-time students. Over one third of the women had obtained a matriculation pass, but significantly fewer had some tertiary education. Whilst the majority of the women had no children, almost a quarter of them had between 1 and 3 children. Given the occupational as well as educational backgrounds of the respondents in the study, the majority could be categorised as falling into the lower income group segment. This is because the majority of the respondents in the study were from one of the poorest provinces in South Africa. Limpopo is one of the provinces with the highest unemployment and illiteracy levels. A description of the sample's demographic data is provided in Table 1.

Table 1: Demographic Characteristics of Victims

Variable	**Victims** (N= 250)
Race	**(%)**
African	100%
Region	**(%)**
Limpopo (Venda)	53.2
Gauteng	24.4
Western Cape	22.4
Marital Status	**(%)**
Single	64
Co-habiting	4.4
Separated	7.2
Married	16.8
Divorced	4.4
Widowed	3.2
Parental Status	**(%)**
No	54
Yes	44.8
Missing	1.2
Education	**(%)**
University degree	10.8
Post-graduate	8.8
Matric	43.2
Less than Matric	37.2
Employment Status	**(%)**
Unemployed	37.6
Full-Time employed	16
Part-Time Employed	7.6
Student	34.8
Other (Retired)	3.2
Income (R per month)	**(%)**
Up to 999	5.6
1000- 2999	9.2
3000-5999	4.8
6000-8999	2.0
9000+	3.2
Not Willing to Disclose	75.2

5.1.2 PRIOR RAPE VICTIMIZATION AND CIRCUMSTANCE OF RAPE

Over half of the victims of rape in the present study were raped by an acquaintance or someone known to them by sight only (28.4% and 28% respectively). Also, a number (43.2%) of respondents also indicated to have been raped by a stranger. A slightly alarming number (31.6%) reported a rape history prior to the recent assault (refer Table 2).

The women survivors in this study also reported significantly high levels of severity during the rape assault. A large majority (84%) of the women in the present study reported the use of force during the rape attack, with almost half of the sample reporting the use of force during the incident (refer Table 4). In summary, the women in the present study reported rather higher levels of assault severity than would have been expected.

Table 2: Rape Assault History

	N	%
Been raped before		
Yes	79	31.6
No	169	67.6

Circumstance of Recent Assault

Table 3: Offender Relationship

	N	%
Offender Relationship		
Completely unknown	108	43.2
Acquaintance	71	28.4
Known by sight only	70	28

Table 4: Use of Force

	N	%
If force was used		
Yes	210	84
No	40	16

Table 5: Type of Force Used

	N	%
Force Used		
Twisted Arm	74	84
Hit and Slapped	130	16
Other	6	2.4

Table 6: Type of Weapon Used

	N	%
Weapon Used		
Knife	98	39.2
Gun	55	22
Total	153	

Table 7: Type of Force by Weapon

		Twisted arm	Hit and Slapped	Other	Total
Weapon Used	Knife	24	45	5	74
No Weapon		40	60	0	100
	Gun	10	25	1	36
Total		74	130	6	210
%		29.6	52	2.4	

Of the total 250 respondents somewhat more survivors (n = 210) indicated to have had force and weapon used during the rape. The survivors of rape who reported to have had a knife used during the rape also indicated to have been hit and slapped and had their arms twisted. More than half of the respondents had a knife or gun used during the rape.

Furthermore, for the model proposed in this study, the rape assault severity was a composite of the survivors' response to three indicators of rape assault severity: if physical force was used (0=No, 1= Yes); if force was used, (if the victim was slapped and hit = 2); If force was used, (victim had a twisted arm = 1) and if a Gun (=2) or Knife (=1) was used. The highest score is 5, which indicates a greater severity of rape-assault. The survivors of rape in the present study reported moderate (26% = a score of 3) to high (29.6% = a score of 4) levels of severity during the rape assault.

Table 8: Assault Severity

Score	Frequency	
0.00	18	7.2
1.00	15	6.0
2.00	45	18.0
3.00	74	29.6
4.00	65	26.0
5.00	33	13.2
Total	250	100.0

In sum, these results are indicative of the extent of violence suffered by survivors of rape in the present study. Over and above the distressing incident of rape, the women in this study also suffered physical assault and use of weapon during the ordeal.

5.1.3 SUMMARY

The survivors of rape in this study appeared to be relatively young with 27.2% in ages 25-30 years of age and 26.8% in ages of 18-20 years. Only 22% of the respondents reported to be in ages of 30 years and above while 24% were in age groups between 21-24 years. Two thirds of the survivors in the present study were currently single (64%) and with no children (54%). At the time of the survey forty-three percent of the women had obtained matric (Grade 12) and were either unemployed (37.6%) and in school as full time students (34.8%). There are several possible explanations for this profile. As previously discussed, the majority of the participants in this study were from one of the provinces with low economic growth and opportunities within South Africa. Venda, which, is in the Northern Province (Limpopo) has the highest levels of unemployment in the country.

The results of the survey suggest that someone they knew, that is an acquaintance and someone known by sight only, raped the survivors in this study. The findings also suggest that more women were subjected to physical

force (hit and slapped, twisted arm) and had the weapon used during the rape. One third of the respondents had been raped before.

5.2 Confirmatory Factor Analysis

In order to check the structure of the measuring instruments or scales, the Confirmatory Factor Analyses (CFA) were conducted on all the hypothesized factors, which are drawn as latent factors. For some of the measures, the analyses produced factor structures that were identical to those reported by the authors of the instrument and some were not. With the Lisrel program (Joreskog & Sorbom, 1991), the statistical fit criteria (GFI χ2) were used to assess the degree to which the sample data are consistent with the posited factor structure. For example, there were three hypothesized attribution factors (behavioural, characterological and external attribution). The fit indices (like chi-square) indicated that the data was not consistent with the model of the three attribution styles. In this case, an explorative factor analysis was conducted to estimate the factor loadings. In exploratory factor analysis, the author proceeded as if there were no hypothesis about the number of factors and the relations between the items and factors. The detailed results of the outcomes with respect to the attribution measurement are discussed in the following sections. The same process was conducted with all the other measurements in the study. The test of fit for all the measurements in the exploratory analysis was preceded by the process of determining the feasibility of the factor analysis through the Measure of Sampling Adequacy (MSA) using the Kaiser-Meyer-Olkin (KMO and Bartlett's Test). The factors in each of the measurements were subjected to varimax rotation. Only in one of the measurements, specifically the Rape Myth, was second-order factor analysis conducted. The second order factor analysis is another variation of factor analysis in which the correlation matrix of the common factors is itself factor-analysed. The second order factor analysis was performed on the Rape Myth scale to improve on the specific hypotheses of the measurement structure due to the lower reliability of the two factors in the first order confirmatory analysis. In the present study, the second-order factor analysis confirmed the original scale structure of Rape Myth with a meaningful one-factor order accounting for a significantly higher percentage of

the total variance. The tests of internal consistency were all also performed on the confirmed and new scales.

5.2.1 ATTRIBUTION

5.2.1.1 CONSISTENCY AND STRUCTURE

The internal consistencies (as per the original scales) in the present study for the Behavioural attribution and External attribution were rather high (Cronbach α = .75 and α = .75 respectively). With α = .62 (n = 246) the internal consistency for the Characterological attribution was substantially lower than that of the other two types of attribution (refer to Appendix B-1.1). The reliability of Behavioural attribution is slightly lower than the original reliability found in previous studies on the similar sub-scale labelled Victim Type (Meyer & Taylor, 1986). The reliability of the present External attribution is slightly more than that of similar subscales (e.g., Societal Blame scale; Frazier, 1990; Meyer & Talyor, 1986) observed in the literature.

The composition of the Behavioural attribution is consistent with Frazier's conceptualisation of behavioural self-blame. (e.g., I made a rash decision, I should have been more cautious), which appears to be a measure of the extent to which a survivor blamed her behaviour, abilities and attitudes for the rape. The Characterological attribution scale is similar to Frazier's (1990), which appears to be a measure of blame attributed to the survivors' characteristics and uncontrollable forces (e.g., I am a victim type).

In the interest of replicating Frazier's (1990) scale, a confirmatory analysis was conducted on the 15 statements using the LISREL programme (Jöreskog & Sörbom, 1991). As indicated in Table 8, the test yielded poor LISREL fit index: the Chi-square value was 458.99 (*df* = 87, *p =. 000).* The Goodness of Fit Index (GFI) was .775, thus indicating that the data was not consistent with the model of the three attribution sub-scales of Behavioural Attribution, Characterological and External Attribution as postulated. Therefore, the three attribution styles could not be adequately confirmed as per the original scale (refer to B-2).

Given that the data did not appear to fit this original three structure, an exploratory maximum likelihood factor analysis was conducted on the 15 attribution items. Firstly, the Measure of Sampling Adequacy (MSA) was conducted using Kaiser-Meyer-Olkin Measure (KMO & Bartlett's Test) to determine the feasibility of factor analysis. All the items except for one item (item 15 = I have bad luck) had high MSA. This suggests that the item does not correlate with any other items within the scale. Four factors with eigen values greater than 1 were identified. The four- factor solution accounted for 59% of the total variance. It was found that for solutions beyond the three–factor solutions, the fourth factor was defined by two items with one item of salient loading (item 15 = I have bad luck) reflecting the characterological and another item with a loading of .39 (item 6 = There are never people around when you need them) reflecting the external attribution element. Due to the lack of interpretability of this factor and a low reliability of α=.34 (see Appendix B-2), this factor was dropped from the scale. Therefore only the three new dimensions were considered as shown in Table 10. A new LISREL analysis conducted on the 3 exploratory factors of Attribution also yielded a non-significant fit between the theoretical scales of attribution styles and the exploratory data factors (χ2 =353.26, *df = 89, p=0.000).* Given that both the confirmatory and exploratory results yielded poor fit, the author looked at the goodness of fit indices of both the confirmatory and exploratory results. As shown in Table 9, the exploratory fit index (.84) was slightly more than that reported for the confirmatory results (.75). Therefore, the three factor-solution yielded by the exploratory analysis, being the most interpretable, was regarded as an adequate representation of the data**.** Table 10 summarizes the varimax-rotated three dimensions of Attribution as identified in the present study as well as the reliability coefficients. While the statistical evidence presented here indicated an inadequate fit of data to the original structure, the three dimensions that emerged have some elements similar to those identified in theoretically established subscales of attribution as proposed in previous research (Frazier, 1990; Janoff-Bulman, 1979,1992; and Meyer & Taylor, 1986).

Factor 1, labelled External attribution, contained 5 items with factor loadings above .45. Factor 1 was mostly saturated with items that tapped to external (societal) factors of blame (e.g., There is too much pornography, Men have too little respect for women). This factor relates to external attribution and relates well to Frazier's (1990) Societal Factor attribution scale. The second factor, labelled Behavioural self-blame, contained 5 items with factor loadings above .50 (e.g. I am too impulsive, I made a rash decision). The elements in this factor are also similar to Frazier's (1990) Poor Judgement scale, which reflects behavioural elements. The third factor was labelled Characterological self-blame and is also consistent with Frazier's (1990) characterological element scale, labelled Victim Type. It contained 3 items with loadings above .60 (e.g. I am a victim type). The estimations of reliability for three Attribution scales (Characterological, Behavioural and External) were satisfactory, ranging from .67 to .75. The alpha coefficient for Behavioural and External attributions were at .75 respectively and .67 for Characterological attribution.

Table 9: Confirmatory And Exploratory Factor Analyses for the Attribution Measurement

	Confirmatory	**Exploratory**
GFI	.775	.842
Adjusted GFI	.690	.787
Difference in Fit	$\chi 2$ = 458.99** (df = 87) *p*=. 000	$\chi 2$ = 353.26 **(df = 89) *p*=.000
Root Mean Square Residual	.220	.204

***P*<.05

Table 10: Factor Loadings of Items on Final Attribution Scales

Factors/Item	1	2	3	4	Alpha
1. External Attribution					***.75***
There is too much pornography	*.71*			.26	
Men have too little respect for women	*.72*				
There is too much violence on TV	*.72*				
People are too scared to get involved	*.46*			.21	
There are never policemen around	*.45*		-.27	.25	
2. Behavioural Self-Blame					***.75***
I am too trusting		*.60*			
I made a rash decision		*.58*			
I should have been more cautious	.28	*.54*			
I am a poor judge of character		*.60*	.35		
I am too impulsive		*.60*		.29	
3. Characterological Blame					**.67**
I invited the situation upon myself			*.60*		
I can't take care of myself			*.64*		
I am a victim type			*.67*	.23	

Note. Italics indicate factor loadings for those items included on each scale.

5.2.2 Intrapersonal Resource: Hardiness

5.2.2.1 Consistency and Structure

Similar procedures were followed to confirm the structure of the scale. The three Hardiness subscales (as per adaptation of the Dispositional Resilience Scale and the Personal View Scale, Maddi, 1987; Bartone et al. 1989; King et al., 1998) had lower internal consistencies compared to previous research findings (King *et.al.*, 1998). In the current study estimations of reliability indicated that the Commitment dimension of Hardiness had the lowest internal consistency, with a Cronbach's α = .44. The corrected item-total correlation for this subscale was also significantly lower for two of the total four items (see Appendix B 1.1). The internal consistency of the Control dimension in the

present study amounted to α = .64 and the dimension with elements of Challenge scale had α = .63.

Because Hardiness consists of the three subscales (Control, Commitment and Challenge), the reproducibility of these structures was tested in this study. All 13 items were subjected to the maximum likelihood confirmatory analysis using the LISREL 7.2 program (Jöreskog & Sörbom, 1991). When the three- factor model of commitment, control and challenge was fitted to the data, the results provided a fit index of .90 (see Table 11), indicating that the data was not sufficiently consistent with the model as hypothesized. Thus, suggesting an inadequate representation of the data to the three-factor model of commitment, control and challenge as hypothesized in the previous research.

Table 11: Confirmatory and Exploratory Factor Analyses for the Personality (Hardiness) Measurement

	Confirmatory	**Exploratory**
GFI	.909	.916
Adjusted GFI	.866	.858
Difference in Fit	$\chi 2$ = 158.03 ** (df 62) *p*=.000	$\chi 2$ = 148.88 **(df = 54) *p*=.000
Root Mean Square Residual	.111	.072

***P*<.05

In exploring further the dimensions of Hardiness, all thirteen items met the Kaiser-Meyer Olkin's criterion with two items (5 = It is very hard for me to change a friend's mind about something; and item 6 = Day dreamds are more exciting for me than reality) having low MSA of .53 and .55 respectively. The thirteen items were subjected to the exploratory factor analytic procedure, with varimax rotation and yielded three factor solutions explaining 51.3% of the total variance (see Appendix B-2). The first dimension to emerge from the factor analysis consisted of six items, which appeared to be defining both the elements of commitment (e.g. I really look forward to doing my daily routine) as well as those of challenge (e.g., It bothers me when my daily routine gets

interrupted). One item – Item 13 (e.g. I really don't mind when I have nothing to do) in this scale had a negative loading. When reversed, the corrected item-total correlation suggested that if the item with a negative loading were deleted, the reliability of the factor would be improved. The item was therefore dropped from this factor (refer Appendix B1.1.4). Contrary to previous research, the first dimension seems to suggest that while the survivors of rape in this study were committed to maintain the routine in their lives, this does not preclude taking on life challenges. To some extent, this dimension appeared to reflect a dimension of acceptance of the situation as part of ones' growth in life. Therefore, for the purpose of this study, the first dimension was labelled Commitment. The estimation of reliability for this dimension was rather high (α= .78). The second dimension was labelled Control and consisted of four items, which clearly addressed aspects of control dimension (e.g., Trying hard doesn't pay since things still don't turn out right). This dimension had a Cronbach's alpha of .65. The last factor consisted of three items with one item (item 5) having a significantly higher loading of *.72* and moderately higher corrected item-total correlation. This item appeared to tap into the Control (e.g. It's very hard for me to change a friend's mind about something) component of hardiness. The other two items within the last dimension included the two items that appeared to be closely tapping into commitment (e.g., Daydreams are more exciting for me than reality, Getting close to people puts me at risk of being constrained to them). The two items had relatively lower loadings of *.34 and .43* respectively. Given the relatively low estimation of reliability for the last dimension (α= *.45*) as well as lack of interpretability, this dimension was dropped from the Hardiness scale. Therefore, only two dimensions of Hardiness were considered.

In an attempt to improve the data fit to the hardiness components, the exploratory factor analysis was conducted on the two identified dimensions of Hardiness (Commitment and Control). The chi-square values (as shown in Table 11) computed for the exploratory factor analysis yielded a significant chi-square of 148.88 (*df* = 54, *p*=0.000), and GFI (.91). This suggesting a lack of data fit to the components of hardiness. Therefore, for both the confirmatory and exploratory the author could not find an adequate fit of data to the

theoretical dimensions of Hardiness. However, because the index was slightly higher for the exploratory analysis, the decision was made to proceed with the exploratory factors.

To avoid over factoring, each of the varimax–rotated factor solutions was carefully examined for simple structure and interpretability as well as the reliability. All the factors were carefully examined for correspondence with the three specific hardiness components. The three components of hardiness were not clearly differentiable in this sample of South African rape survivors, particularly the elements of commitment and challenge. While the control structure as well as the commitment components was adequately represented in the data, it appeared that the component of challenge could not be adequately confirmed. Whilst not consistent with the majority of the findings on the three composites of hardiness, the challenge factor could also not be confirmed in the study on association among hardiness, health value and health protective behaviours among African-American and European-American college students (Harris, 2004). Therefore, the two-factor solutions defined in terms of Control and Commitment, were regarded as adequate representation of the data due to interpretability and higher internal consistencies (see Table 12). The alpha coefficients for each factor were: .78 for Commitment and .65 for Control. The results regarding the scale's reliability are significantly higher compared to that found in the original structures.

Table 12: Final Two-Factor Solution and Internal Consistencies of Hardiness: Commitment and Control

Factors/Item	1	2	3	Alpha	N
1. Commitment				***.78***	**245**
Really look forward doing my routine*	*.72*	-.213			
Know why I'm doing what I am	*.73*				
Bothers me when routine changes	*.71*				
Feel uncomfortable if have to make changes	*.58*				
Encountering new situation is important	*.65*				
2. Control				**.65**	**249**
Efforts accomplish nothing		*.75*			
If someone gets angry, it's no fault of mine		*.37*			
Trying hard doesn't pay		*.75*			
Handle most problems by just not thinking		*.43*			

Note. Italics indicate factor loadings for those items included on each scale. Asterisked items are negative items for reverse scoring.

5.2.3 Rape Myth

5.2.3.1 CONSISTENCY AND STRUCTURE

The internal consistency analysis was based on the data of 239 rape survivors in the present study. Cronbach's α for the complete scale (as per the original scale) was .90. The corrected item-total correlation was high for all items in this scale (see Appendix B1.1). These results resemble very closely those found in previous research (Lonsway & Fitzgerald, 1995).

To confirm the structure of the scale among the participants of the present study, the confirmatory analysis was conducted. The chi-square results on this scale revealed a fit index of .81. Thus suggesting poor fit of data to the theoretical measurement. Contrary to the previous research, the first order

factor analysis revealed four factor solutions, which explained 57.5% of the total variance (see Appendix B-2). The first factor consisted of 5 items, which appeared to reflect victim blame (e.g., When women talk and act sexy, they are inviting rape). The second dimension consisted of nine items, which appeared to reflect beliefs that women were raped because they were also interested and or agreed to being raped. The third dimension that emerged from the factor analysis reflected beliefs about lack of resistance to justify rape. The last factor, labelled Trivialization of Crime, consisted of 3 items with loadings from .40-.57. This factor appeared to be reflective of the respondent's trivialization of the crime. The internal consistency revealed Cronbach's α of .81 for Victim Blame, α = .83 for the second dimension, labelled Victim Desire-Enjoyment, α = .58 for False Charge and Cronbach's α = .55 for Trivialization of Crime.

To further improve on the specific hypotheses of the measurement structure, a second order factor analysis was conducted. The second order factor analysis on this measurement confirmed the one factor solution (with all the items as per the original scale) for this scale, which explained 73% of the total variance. However, the chi-square (as previously discussed) for this scale indicated a lack of fit of data.

Table 13: Confirmatory Factor Analyses for the Rape Myth Measurement

	Confirmatory
GFI	.812
Adjusted GFI	.765
Difference in Fit	$\chi 2$ = 481.57* (df=152) *p*=0.000
Root Mean Square Residual	.065

**p<.05

5.2.4 Psychological Impact

5.2.4.1 CONSISTENCY AND STRUCTURE

The internal consistencies for the psychological impact sub-scales were α = .79 for Intrusion, α = .73 for Avoidance and α = .73 for Hyperarousal. The Intrusion subscale had higher item-total correlations (refer Appendix B-1.1.6). The confirmatory analysis revealed a fit index of .81 for the measurement with the three dimensions (see Table 14). Thus, suggesting inadequate fit of data to the theoretical structure of the measurement.

Table 14: Confirmatory Factor Analyses for the Psychological Impact Measurement

	Confirmatory
GFI	.819
Adjusted GFI	.777
Difference in Fit	$\chi 2$ = 532.93** (df=206) *p*=0.000
Root Mean Square Residual	.108

**p<.05

To further explore the structure of this measurement, the exploratory factor analysis procedure yielded a four-factor solution, which accounted for 50.7% of the total variance (see Appendix B-2).

Factor 1, labelled Hyperarousal, contained seven items with factor loadings above .44 and an alpha coefficient of .82. This factor appeared to reflect elements of both hyperarousal (e.g., I feel watchful and on guard) as well as intrusion (e.g., I have dreams about it). Four items out of the total seven items on this factor reflected elements of hyperarousal (as per the structure of the original scale) with loadings between .44-.63. The second factor, labelled Intrusion, contained 6 items with factor loadings of .36 to .75, with a Cronbach's α =.79. Out of the total six items, which loaded on this factor, 5 items reflected

elements of intrusion (as per the original scale). The dimension to emerge from the factor analysis contained four items with factor loadings of .39 to .51, with an alpha coefficient of .61. This factor appeared to reflect both avoidance (e.g., My feelings about it are kind of numb) and hyperarousal elements (e.g. I find myself acting or feeling like I am back at that time). There was an equal number (2 each) of items reflecting elements of Avoidance and two reflecting Hyperarousal. This factor was labelled Avoidance-Hyper. The fourth factor was labelled Avoidance and contained 5 items with factor loadings above .34. All five items on this factor reflected elements of Avoidance as per the original scales. Consistent with previous research reporting an alpha coefficient of between .62 and .85 for Avoidance, the alpha coefficient for this scale was .67 The internal consistency of the Intrusion scale very closely resembled that found in the original structure (α =.67-.87, Dyregrov et al., 2000; Weis & Marmar, 1997). The reliability of Hyperarousal was also well within the acceptable norm (α = .81) and slightly higher than reported in the original structure measurement (.64-.79).

Consequently, the responses based on the 22-item responses of the 250 rape survivors were subjected to an exploratory maximum-likelihood factor analysis using LISREL 8.54 programme (Jőreskog & Sőrbom (2002). The chi-square values computed for the four factor solutions yielded a chi-square (p = 0. 000*)* 429.92 (df = 203) and fit index of .86, indicating an improvement in fit compared to the confirmatory analysis. In the interest of consistency with theoretical research, the confirmatory 3-factor solution (see Table 15) was kept as it was interpretable and had elements that resemble the original structure of the measurement. The fit of the model (.81) was further supported by its root mean square error of approximation (RMSEA = .108), which was within the acceptable range (as suggested by Hu & Bentler, 1999).

Table 15: Final Scale on Impact of Event Scale –Revised (IES-R)

	Factor Loadings			
Factors/Item	1	2	3	Alpha
1. **Hyperarousal**				*.73*
Feel irritable and angry	*.54*			
Jumpy and easily startled	*.46*			
Find myself acting or feeling like I'm back	*.43*			
Trouble falling asleep	*.65*			
Have trouble-concentrating	*.61*			
Reminders cause physical reactions	*.47*			
Try not talk about it	*.48*			
2. **Intrusion**				*.79*
Reminder brings back memory		*.50*		
Trouble staying asleep		*.69*		
Other things make me think about it		*.64*		
Think about it when don't mean to		*.50*		
Pictures pop in my mind		*.60*		
Have waves of strong feelings about it		*.58*		
Have dreams about it		*.65*		
3. **Avoidance**				*.73*
Avoid letting myself get upset			*.49*	
Feel as if it hasn't happened			*.35*	
Stay away from reminders			*.50*	
Try not to think about it			*.49*	
Aware that I still have lots of feelings about it			*.66*	
Feelings about it are kind of numb			*.39*	
Try to remove it from memory			*.63*	
Try not to talk about it			*.51*	

Note. Italics indicate factor loadings for those items included on each scale.

5.2.5 Coping

5.2.5.1 CONSISTENCY AND STRUCTURE

The internal consistencies for the 8 coping scales were conducted. The internal consistencies of some of the scales had lower reliability coefficients (alphas = . 24 - .68) compared to that found by Frazier and Burnett (1994). Keep Busy

(e.g., I keep myself very busy with different activities; I try to keep myself occupied with work and school) and the Precaution at home scale (I always check my door before opening, I keep all of the house doors locked, and I walk with keys in hand so I won't fumble.) had slightly higher reliability with alpha coefficients .73 and .68 respectively. In contrast, the Precaution outside scale (items 2, 8, and 16) had the lowest (alpha coefficient .24) reliability of all the scales (See Table 16).

Table 16: The internal consistency (α) of the Coping scales

Coping Variable	Items	N	α
Precaution: Home	1,4,6	247	.68
Precaution: Outside	2,8,16	247	.24
Stay Home	14,17,18	243	.44
Keep Busy	10,11	245	.73
Think Positive	3,7,9	244	.51
Suppression	7,12,13	244	.61
Worst Experience/Minimization	5,15	245	.41
Withdraw	19,20	249	.59

Because the coping scale consisted of eight subscales, it was of interest to examine the reproducibility of the eight-factor structure in the responses of the present sample of South African rape survivors to the Coping scale. The maximum likelihood confirmatory factor analysis was conducted using the LISREL 7 programme (Jőreskog & Sőrbom, 1991). When the eight coping model of Precaution: Home; Precaution: Outside; Stay Home; Keep Busy; Think Positive; Suppression; Worst Experience and Withdraw were fitted to the data, the results indicated that the data were not consistent with the model as indicated by the relatively low LISREL fit index: - Chi Square value was 314.98 (*df* = 141. *p*= 0.000), Goodness of Fit Index was .880, and Adjusted Goodness of Fit Index (AGFI) was .82.

Table 17: Confirmatory Factor Analyses for the Coping Measurement

	Confirmatory	**Exploratory**
GFI	.880	.877
Adjusted GFI	.821	.821
Difference in Fit	$\chi 2$ = 314.98** (df= 141) *p*=0.000	$\chi 2$ = 314.25** (df= 144) *p*= 0.000
Root Mean Square Residual	.083	.084

***p*<.05

Given that the data did not appear to adequately fit this eight-factor model, an exploratory maximum likelihood factor analysis was conducted. The initial estimation yielded 7 factors with eigen values above 1, accounting for 63.7% of the total variance (see Appendix B-2). Two of the factors were defined by one (item 15 = I can't imagine anything worse) to two items (item 2 and 14) of salient loadings, low reliability (α = .35) and were not interpretable. Therefore, the five-factor solution, being the most interpretable, was regarded as an adequate representation of the data (see Table 18). The chi-square value computed for the five-factor solutions was 314.25 (*df* = 144. *p* = 0.000.), and the fit of index (GFI) was .87 (see Table 17). Thus, indicating a lack of fit of data to the theoretical measurement structure. Therefore, neither the new nor the old structure could be adequately confirmed (as shown in Table 17)

In the interest of the present study, to understand the extent to which survivors of rape use approach-oriented focused coping strategies and avoidance-focused coping strategies in coping with rape victimization, the two indicators of efforts oriented towards preventing future victimization (Precaution) and those oriented away from the threat (Withdraw) were used in the final model to represent coping strategies (See Table 18).

Table 18: Five-Factor Solution of Coping

Coping Items	Precaution α = .65	Positive Thinking α = .65	Keep Busy α= .71	Suppression α= .65	Withdraw α = .66
1. I always check my door before opening.	.68				
2. I do not need to have alcohol to live happily.					
3. My strongest feeling is that I'm glad to be alive.		.63			
4. I keep all of the house doors locked.	.75				
5. This was the worst experience I ever had.		.58			
6. I walk with keys in hand so I won't fumble.	.52				
7. I try to keep my mind on positive thoughts.		.59			
8. I'm always certain to lock every possible opening wherever I am.	.34				
9. I've tried specific ways to reduce stress.			.50		
10. I keep myself very busy with different activities.			.78		
11. I try keep myself occupied with work and school			.72		
12. The best thing is to put rape behind you.				.67	
13. I tried not to think about the rape.				.66	
14. I dress very modestly.					
15. I can't imagine anything worse.					
16. I don't take public transportation at night.				.40	
17. I only leave the house when I have to.				.46	.49
18. I rarely leave my house anymore.					.70
19. I pretend I'm not home when someone knocks.					.65
20. Sometimes I don't answer the phone					.47

The first factor, labeled Precaution, contained 4 items with factor loadings of .34 - 75. Similar to Frazier and Burnett's (1994) conceptualization of precaution, this factor appeared to reflect survivors' approach in preventing future victimization (e.g., I always check my door before opening; I keep all house doors locked). Thinking Positive (e.g. my strongest feeling is that I'm glad to be alive) was identified as the second factor. This factor consisted of three items with factor loadings above .57. The third factor, labeled Keep Busy, consisted of three items with factor loadings above .50. Similar to Frazier and Burnett (1994), this factor appeared to relate to the survivors' use of emotion-focused coping strategies (e.g., I keep myself very busy with different activities). The fourth factor, which contained 4 items, was labeled Suppression (e.g., I only leave the house when I have to; I tried not to think about the rape). Other items reflecting on precautionary behaviour (e.g., I don't take public transportation at night) and withdrawal (e.g., I only leave the house when I have to) also loaded on this factor. The fifth factor, labeled Withdrawal, consisted of four items (e.g., I rarely leave my house anymore, I pretend I'm not home when someone knocks,)

Table 19: Final Scale on Coping Strategies (Approach & Avoidance)

1.2 Approach	α=*.65*
1. I always check my door before opening.	*.68*
2. I keep all of the house doors locked.	*.75*
3. I walk with keys in hand so I won't fumble.	*.52*
4. I'm always certain to lock every possible opening wherever I am.	*.34*
Avoidance	α=*.66*
5. I only leave the house when I have to.	*.49*
6. I rarely leave my house anymore.	*.70*
7. I pretend I'm not home when someone knocks.	*.65*
8. Sometimes I don't answer the phone	*.47*

5.3 Descriptive Statistics

Descriptive statistics for all the measurement variables (exogenous and endogenous) are presented in Table 19 (refer to Appendix B for all measurement correlations).

Table 20: Descriptive Statistics

Final Model Measures	N	Mean	Std Deviation
Coping			
Avoidance	249	2.70	.89
Approach	249	3.36	.76
Psychological Impact (IES-R)			
Psychological Impact	**250**	**2.1**	**.71**
Intrusion	250	2.32	.83
Avoidance	250	2.27	.70
Hyperarousal	250	2.66	.96
Attribution	**250**	**2.50**	**.69**
Behavioural	250	2.59	.90
Characterological	250	2.13	.99
External	250	3.27	1.04
Assault Severity			
Assault Severity	250	3.00	1.36
Hardiness			
Commitment	250	3.60	.74
Control	250	2.88	.81
Rape Myth			
Rape Myth	250	1.82	.57

5.3.1 ATTRIBUTION: CHARACTEROLOGICAL, BEHAVIOURAL AND EXTERNAL

Survivors of rape in the present study gave a higher mean score for external attribution (M=3.27: SD=1.04) and less to aspects of their behaviour (M= 2.59: SD =.90) and character (M= 2.13: SD=.99). The findings are consistent with previous research that victims of rape infer the cause of their victimization to both aspects of internal attributions. An interesting finding in this study is the extent to which victims also attribute the causes for their victimization to external factors.

5.3.2 INTRAPERSONAL RESOURCES: HARDINESS COMPONENTS

The survivors of rape in this study appeared to resort more to the commitment dimension of hardiness. The mean score values as shown in Table 20 also indicated endorsement of the control dimension of hardiness.

5.3.3 RAPE MYTH

Overall, the pattern of response to rape myth acceptance in this study suggest that the female rape survivors across the three provinces in South Africa gave responses that seemed be less accepting of these beliefs. These findings appear to be consistent with the empirical literature suggesting that women are less likely to accept rape myths (Johnson & Hitchcock, 1999).

5.3.4 PSYCHOLOGICAL IMPACT: INTRUSION, AVOIDANCE AND HYPERAROUSAL (IES-R)

Inspection of the responses to the psychological impact items revealed substantial consistency in the extent to which rape survivors reported the psychological impact of rape victimization. The mean standardized values revealed that respondents reported more hyperarousal symptoms of psychological impact and less avoidance symptoms of psychological impact. The investigation of the Pearson correlations among the psychological reactions (shown in Appendix B) reveals a nearly uniform pattern of significant relationships between the sub-scales. This evidence on the relationship among the three sub-scales is consistent with earlier findings reported, particularly on

the strength of the relationship between Intrusion and Hyperarousal (Weiss & Marmar, 1997).

5.3.5 COPING: APPROACH AND AVOIDANCE

As reflected in Table 20, the survivors of rape in the present study resorted to Avoidance coping styles and some to Approach coping styles. Thus suggesting that survivors of rape may alternate between the two types of coping. To an extent, survivors in the present study gave responses suggesting relatively higher utilisation of Approach coping styles. The finding that there was an average or lower endorsement of withdrawal (Avoidance) coping styles is consistent with Frazier and Burnett's (1994) findings. These findings are also consistent with the coping literature suggesting that although one type of coping may be emphasised more, depending on the context, people usually alternate between the two types of coping.

5.4 Model Testing

5.4.1 STATISTICAL APPROACH- BACKGROUND

To explain the relationships between assault severity, attribution, personality, rape myths and psychological impact, the Structural Equation Modelling (SEM) technique was used in this study. Likewise, the main analysis on the model was conducted using LISREL 7.20 & 8.54 programs.

Having at it roots multiple regression and path analysis; SEM is a comprehensive multivariate statistical approach (Hox & Bechger, 2005). SEM is a very general statistical modelling technique, which is widely used in the behavioural sciences. It can be viewed as a combination of factor analysis and regression or path analysis. In essence, structural equation implies a structure for the co-variances between the observed variables, which provides the alternative co-variance structure modelling. It provides a very general and convenient framework for statistical analysis that includes several multivariate procedures, for example, factor analysis, regression analysis, discriminant analysis and canonical correlation as special cases.

The shortcoming of path analysis models solved by using multiple regression is that there exists the assumption that there is no error in measuring each variable (measurement error) and that each variable is an exact representation of a construct (specification error). Dealing with latent constructs and measurement error are the two most important advantages of SEM. Estimates of measurement error and unreliability are made explicit. Furthermore, this technique is used to test theoretically derived hypotheses about relations among constructs (latent variables) and measured (observed) variables.

In the social sciences, particularly psychology, where theoretical variables or constructs are widely used and "tested", it is imperative that methods be considered that allow for the outright inclusion of these constructs as opposed to the use of a single variable to represent fully the construct under question. In reality, these assumptions are never met, absolutely. There would be some error and there are multiple indicators of a construct that could be considered.
There are three major steps of the SEM procedure and they are described as follows (a) model specification, (b) assessment of model fit, and evaluation of specific model parameters, (c) Post Hoc Model Modifications. Each step is described below.

Model Specification. Specifying a model involves stating the nature of the relationships within a set of measured variables. Guided by theory, one attempts to derive a model that is a meaningful and parsimonious explanation of relationships within a set of variables.

The variables associated with the system are categorized as either latent or observed. Latent variables are hypothetical constructs; whereas observed variables are the measured variables that form the database for a study. Whether observed or latent, each variable includes an error component. This error term can further be differentiated into (a) residual associated with each observed variable (called error) and (b) the residual associated with the prediction of each construct (called disturbance).

It is customary to represent models using path diagrams. The path diagram provides a pictorial representation of the hypothesized relationships and enables a clearer conceptualization of the theory under study. Squares or rectangles represent observed variables and circles or ellipses represent latent variables, including error terms. Directional effects between variables are specified using single-headed arrows, and non-directional relationships (whereby no causality is hypothesized), are represented using double-headed arrows.

The LISREL representation of the structural equation model (used in this study) classifies variables as either dependent (endogenous) or independent (exogenous) variables. A variable is considered to be a dependent variable if (in the path diagram) it has unidirectional arrows aiming at it and has hypothesized causes. Any latent variable that is caused by another latent variable is also a dependent variable. In contrast, independent variables are determined by factors outside the model and have no causes specified in the model and have no unidirectional arrows aiming at them.

There are two components of the general structural equation model: the measurement model and the structural model. The measurement model is that part of the model in which some observed variables are selected to be manifestations of latent constructs. In other words, latent variables are operationalized *vis a vis* observed variables. The structural model prescribes hypothesized relations between endogenous variables. Combining measurement and structural components results in a comprehensive statistical model that can be used to evaluate relations among constructs and variables (that are free of measurement error).

Thus, specification can be viewed as a twofold process, specifying structural and measurement models. In specifying the structural aspects of the model, the researcher uses theory to guide the development of hypothesized relations among variables. Key questions that are addressed during this stage include: How is variable A related to variable B?; What is the direction of impact?; Is it a direct or indirect relationship?; If indirect, what is the mediating variable?

Direct effects and indirect effects can be modelled with SEM. The direct effect is the part of a variable that is not transmitted by other variables. An arrow that starts at the predictor variable and leads directly to the dependent variable represents it. The indirect effect is the influence of the predictor variable that is transmitted through another variable.

Each of these directional relationships can be thought of as having a numerical value associated with it. Numerical values associated with directional effects are regression coefficients or weights applied to variables in linear regression equations. For non-directional relationships, (relationships with no hypothesized direction of influence) the numerical values are the co-variances or correlations. These weights and co-variances that characterize these relationships can be thought of as the parameters of the model. A major objective in applications of SEM is to estimate the values of these parameters (Hoyle, 1995). Parameters can be specified as either fixed or free. Fixed parameters are usually set to zero or 1 and are not estimated. Free parameters are estimated.

Latent endogenous variables, being theoretical in nature, have no scale or metric. Therefore, each latent endogenous variable is given a scale by fixing its relationship to one of its indicators. (If latent endogenous variables are not assigned a reference, other problems arise, including model identification, which is discussed later in this section). In the case of latent exogenous variables, there is the option of either fixing its relationship to one of its indicators or fixing its variance.

A model and the associated path diagram also involve mathematical specification in the form of structural equations. Each equation expresses a dependent variable as a function of the independent variable(s) leading into it. There are as many equations as there are dependent variables. “A term is included for every straight arrow leading into the downstream variable. The term consists of the variable at the tail of the arrow times the path coefficient associated with it” (Loehlin, 1998). The issue of model specification is related to

the statistical identification of the proposed model. A model to be estimated with SEM must be identified. A model is said to be identified if there is a unique numerical solution for each of the parameters in the model.

A structural model may be classified as just-identified, under-identified, or over-identified. A just-identified model is one in which there is a one-to-one correspondence between the structural parameters to be estimated (the unknowns) and the input data points (the knowns). This leaves no degrees of freedom, and hence, the model can never be rejected. This type of model can be made to fit any set of data.

If the number of parameters that are to be estimated exceeds the number of data points (variances & co-variances) then the model is called an under-identified model. In this case the model contains more unknown information than known information and therefore a unique solution cannot be derived from it.

An over-identified model, on the other hand, is one in which the number of parameters to be estimated (the unknowns) is less than the number of data points (the knowns). This situation creates a positive number of degrees of freedom, which allows for the possible rejection or acceptance of the model.

The formula used to calculate the known parameters, also referred to as data points (where N= number of observed variables) is N(N+1)/2. The number of unknown parameters to be estimated subtracted from the known parameters determines the possible degrees of freedom.

To meet the conditions of over-identified models, some constraints on the parameters are imposed. A general rule is that the path coefficient of the error term is fixed to 1.0 and the error variance is estimated.

Assessment of Model Fit. To assess the extent to which a model fits the data and solves the equations, parameter estimates are made. One indicator of overall model fit is assessed by a chi-square test of the residuals. An estimated

covariance matrix implied by the model is compared to the covariance matrix derived from the data. The level of discrepancy between the two matrices - the residual - is reflected in the χ^2 statistic. A large (significant) χ^2 could suggest that the two matrices are very different, leaving an appreciable amount of variance unexplained. Conversely, a small (non-significant) χ^2 could suggest that the matrices are very similar, leaving little variance unexplained; thus minimal residual. In brief, for structural equation models, a non-significant χ^2 value indicates that the proposed model fits the data, whereas a model with a significant chi-squared value does not fit the data.

The quality of model evaluation using χ^2 is dependent on the sample size, however. Large sample sizes magnify the effects of small specification errors, thus leading to a rejection of the null hypothesis (which states that there is no difference between the models and therefore little appreciable residual) when it is true. In other words, the probability of rejecting valid models increases with sample size. Therefore, additional fit indices are taken into consideration when assessing models. These indices include, but are not limited to, the Bentler-Bonnet Normed Fit Index (NFI), the Bentler-Bonnet Nonnormed Fit Index (NNFI), and the Comparative Fit Index (CFI).

The NFI, NNFI, and CFI are sometimes referred to as “incremental” or “relative” fit indices because they derive from the comparison between the fit of a specified model and the fit of an independence, or null, model. The independence model χ^2 is calculated independently from all the variances in the model. Put another way, it is a test of a model with no specified relationships (co-variances) between variables. This model becomes the basis for assessing the adequacy of the hypothesized model with regard to improvement in fit. These indices can range from 0 to 1, where .90 or above is considered a good fit; and anything below .90 is considered a poor fit.

Once the overall adequacy of the hypothesized model is assessed, attention is turned to individual parameters. The parameters of the model are the regression coefficients and the variances and co-variances of independent

variables. Statistical significance of the individual parameters can be tested with a *Z* statistic (parameter estimate divided by the corresponding standard error). Large values of standard errors of the estimated parameters may indicate the misspecification of the parameters.

Post Hoc Model Modifications. Oftentimes, initial models fail to reach acceptable fit and the statistical criteria of the fit indices of .90. In such instances, the researcher must decide to what extent the model can be modified while remaining beholden to the theoretical framework from which the model was derived.

5.4.2 STATISTICAL APPROACH-APPLICATION TO THIS STUDY

The model was based on the conceptual theoretical framework as discussed previously. The model begins with assault severity, which affects attribution styles (internal vs. external blame) for the rape victimization. Both of these variables affect the psychological response (in particular the experiencing of hyper-arousal, avoidance and intrusion symptoms), which in turn directly impacts on coping styles for rape victimization.

We had hypothesized that the rape assault severity, hardiness personality (commitment and control dimensions), and rape myth beliefs would have an influence on post-rape psychological adjustment and on the survivors' coping. It was also hypothesized that victims' attribution and psychological impact would have a direct influence on coping with rape victimization (see Figure 2 for a diagram of this conceptual model). As indicated, this study utilises SEM to reveal distinct manifestations of a few primary forces shaping the coping of rape survivors. This study has attempted to demonstrate a pattern of interrelationships between these constructs and other variables. Furthermore, this research explicitly defined the constructs of coping strategies, psychological impact, rape myths, personality, attribution and severity of rape, and also assessed the usefulness of this definition. Utilizing SEM benefited this study with its provisions for:

- ✓ Outlining direct and indirect relationships between theoretical constructs and variables.

- ✓ Demonstrating possible ways in which constructs posited to impact coping strategies are defined and manifested.

5.5 Model

The model consisted of three exogenous variables (assault severity, hardiness and rape myth beliefs) and three endogenous (dependent) variables (Attribution, psychological impact and coping). In the model, assault severity was a composite of the survivors' response to three indicators of rape assault severity: if physical force was used (0=No, 1=Yes); If force was used (the victim was slapped and hit = 2); If force was used (the victim had a twisted arm = 1) and if a Gun (=2) or Knife (=1) was used. The Hardiness personality construct was defined in terms of Commitment and Control.

When using all the latent variables (with three or more measurables), the model would not converge due too many unknowns (coefficients to predict) and the relatively low correlations. Due to the fact that the model is saturated, there were no modification indices. As a result, all the latent variables were modelled as observed variables (i.e. with loadings fixed to one and errors to zero). The latent variables were treated as a single indicator but we ran canonical correlation to calculate the factor scores (with the two coping dimensions as dependent variables). All latent variables were treated as the same except for Coping, which in this model is the "outcome" variable. The latent[1] variable of coping was represented by two dimensions of coping: - Approach and Avoidance coping styles. Approach is a composite of items geared towards prevention of future victimization. Avoidance coping is constituted of items reflecting strategies oriented away from threat (avoidant). In an attempt to improve the model fit and reach an acceptable fit, we considered the output of the modification indices together with the residuals from the model. The model is a saturated fit (all the paths are open and therefore no indices available). However, the fit statistics suggested the model to have an acceptable fit as indicated by the chi-square and goodness of fit indices. In all, the canonical

[1] Latent Variable is a variable that cannot be measured directly but can be represented by one or more variables (indicators)

correlation was used to calculate the factor scores (with the two coping dimensions as the depedent variable).

5.5.1 CANONICAL CORRELATIONS

There are several measures of correlation to express the relationship between two or more variables. Canonical Correlation is an additional procedure for assessing the relationship between variables. Specifically, this analysis allows us to investigate the relationship between two sets of variables, in particular between the dependent variable (coping) and the independent variable.

In the present study, the weighting of Attribution and Psychological impact was determined before calculating the Canonical relationship (coefficients) of the factors derived from the exploratory factor analysis versus the two coping dimensions of Approach and Avoidance. The Hyper-arousal symptoms explained most of the psychological impact (75%), followed by the Avoidance symptoms (27%). Intrusion did not have any significant (-0.02) contribution to psychological impact. The first root of the Canonical correlations between coping and the psychological impact was significant at 99% level (see Table 21), thus, suggesting a significant relationship between coping and the psychological response to rape victimization.

Table 21: Canonical Relationship between Coping and Psychological Impact

	Raw Canonical Coefficient	Standardized Canonical	Re-Percentaged
Intrusion	.028	.023	-0.02
Avoidance	-.375	-.264	0.27
Hyperarousal	-1.054	-.828	0.75
Wilk's .864, $\chi 2 = 35.88$, ***df =6*, *p= .000*			

The Behavioural and Characterological attribution contributed the most to the attribution composite. Behavioural attribution contributed by 46% and

Characterological attribution by 40% to the overall attribution factor. External attribution contributed the least (.14) to the overall composite. Thus, attribution was mostly explained through Behavioral and Characterological attribution. The first root of the Canonical correlation between Coping and Attribution was significant at a 90% confidence level (Wilks Lambda =. 954, $\chi 2$ = 11.43, *df = 6,p* = .076). Thus, a significant relationship between Coping and Attribution styles is indicated. Table 22 presents a summary of the coefficients.

Table 22: Canonical Relationship between Coping and Attribution

	Raw Canonical Coefficient	Standardized Canonical	Re-Percentaged
External	.196	.205	0.14
Behavioral	.670	.604	0.46
Characterological	.576	.571	0.40

p< 0.1

With regard to the coping versus personality constructs, the first root results of the correlation were not significant (Wilks Lambda = .206, $\chi 2$ = 5.914, df = 4, *p*=.206*)*. Therefore, the two personality constructs of Commitment and Control were used separately in the model

5.6 Final Model

5.6.1 MODEL FIT

Figure 3 displays the final accepted model for rape survivors and gives the LISREL completely standardized coefficients for the 15 inclusive paths. The latent variable, coping, was constructed, and consisted of Approach-coping styles, which contributed 57% to the overall coping factor, compared to Avoidance-coping, which contributed 43% to the composite.

While the variance explained in the present study is not high (30% and above), the model appears to be a decent fit. The model accounted for 14.6% of the variance explained by the Approach and Avoidance coping dimensions. The

accounted variance for each of the 3 endogenous variables was: 30.4% for Coping, 11.2% for the Psychological impact and 8.6% for attribution. The Chi-square value of the SEM indicated that as a whole, the estimated co-variance matrix did not differ significantly from the co-variance matrix derived from the data, thus, showing that the model has a significant fit: $\chi 2$ =9.15, *df = 5,* and *p =.* 103. The goodness of fit indices was also calculated for the SEM tested in the present study. All fit indices reported could range in value from 0 to 1. The goodness of fit indices in the present study indicated that the data fit the model adequately. The Goodness of Fit (GFI) was high at = .991 (with the Adjusted-GFI at .93). The root-mean square residual (RMSEA) was acceptably low at RMSEA = .017.

5.6.2 STRUCTURAL MODEL

The structural aspects of the Model as presented in Figure.3 are discussed in relation to the hypotheses for the study and summarized in answer to the respective research questions. Tables 23, 25, 26 and 29 present the standardized parameters respectively and Tables 24, 27, and 28 present the unstandardized parameter estimates.

What is the impact of assault severity, commitment and control, rape myth beliefs, attribution, psychological response on coping strategies? Is the influence direct or indirect?

H1: Assault severity will have an association with coping.

The hypothesis was not supported. The standardized parameter was .09 (z= 1.03). Therefore, assault severity did not have a significant relationship with coping. While none of these exogenous variables had a significant impact on coping, the findings here might suggest some relationship between these variables and coping strategies (refer Table 23).

Table 23: Standardized Estimates for Direct Effects of Predictor Variables on Coping

Dependent Variable	Predictor Variable	Direct
Coping	Assault Severity	.09
	Commitment	.07
	Control	.02
	Rape Myths	.03

There were also other relationships between these variables (assault severity, personality and rape myth beliefs) that were tested. These relationships are indirect connections between the variables and coping.

If indirect, does the influence of assault severity occur through personality, acceptance of rape myth beliefs and / or through victims' psychological response?

Table 24: Unstandardized Estimates, Standard Errors and Test Stastics for Direct and indirect and Total Effects of Predictor Variables on Coping.

		Direct	Indirect		Total	
Dependent Variable	**Predictor Variable**	**Parameter Estimate**	**Parameter Estimate/Standard Error**	**Z**	**Parameter Estimate/Standard Error**	**Z**
Coping	Assault Severity	1.035	.028/.012	2.35	.060/.032	1.87
	Commitment	.777	.039/.023	1.65	.082/.059	1.39
	Control	.225	.059/.023	2.56	.070/.054	1.30
	Rape Myth	.347	-.055/.028	-1.94	-.030/.077	-0.387

H2: Assault severity will have an indirect relationship to coping through its influence on attribution and psychological impact.

While assault severity did not have a significant direct impact on victims' coping strategies (standardized parameter estimate was .09), but an indirect relationship was supported (refer Table 24 & 25). The standardized parameter estimate for the indirect impact of assault severity on coping (through attribution and psychological impact) was .084 and the unstandardized parameter for the indirect effect was .060 ($z= 2.35$; $p<.05$). Thus, making the total standardized effect of assault severity on coping .175 (see Table 25).

Table 25: Standardized Estimates for Indirect and Total Effects of Predictor Variables on Coping

Dependent Variable	Predictor Variable	Indirect	Total
Coping	Assault Severity	.084	.175
	Commitment	.062	.132
	Control	.103	.123
	Rape Myths	-.069	-.037

In addition, the endogenous variable, Psychological impact was strongly associated with the coping strategies used post rape-victimization. The standardized parameter was .48 ($z= 4.75$; $p<.0001$). Therefore, psychological impact had a much stronger influence on predicting victims' psychological responses (see Table 26). Although not statistically significant, Attribution had a close to significant total effect on coping ($z=2.19$;$p<.05$).

Table 26: Standardized Estimates for Total Effects, Direct and Indirect on Coping

Dependent Variable	Predictor Variable	Direct	Indirect	Total
Coping	Psychological Impact	.48***		.48
	Attribution	.11	.103	.212

* p < .05, **p < .01, ***p<.0001

How does Assault severity influence survivors' psychological response?

H3: Assault severity will have a direct influence on victims' psychological impact The hypothesis was supported. The standardized parameter estimate for this relationship was .15 (z=2.55;p<.05). Although no hypothesis was made, assault severity also had an indirect relationship on the victims' psychological response (see Table 27)

H4: Assault severity will have a direct influence on victims' attribution. This relationship was not significant. The standardized parameter estimate was .05 (z=.797).

Table 27: Standardized Estimates for Direct, Indirect, and Total Effects of Predictor Variables on Psychological Impact

Dependent Variable	Predictor Variable	Direct	Indirect	Total
Psychological Impact	Assault Severity	.15	. 011	. 164**
	Attribution	. 22**		. 22***
	Commitment	. 0.04	.044	. 083
	Control	0.12	. 046	. 167**
	Rape Myth Belief	-0.11	.-.016	.-.127*

* p < .05, **p < .01, ***p<.001,****p<.0001

H5: Victims' attribution will affect survivors' psychological response to victimization. This hypothesis was supported. Attribution was most strongly associated with victims' psychological response (refer Table 27). The standardized parameter estimate was .22 (z=3.44;p<.001), which suggests that the indicators of attribution have a strong influence on victims' psychological response.

Table 28: Unstandardized Estimates, Standard Errors and Test Statistics for Direct, Indirect and Total Effects of Predictor Variables on Psychological Impact

		Direct	Indirect		Total	
Dependent Variable	**Predictor Variable**	**Parameter Estimate**	**Parameter Estimate/Standard Error**	**Z**	**Parameter Estimate/Standard Error**	**Z**
Psychological Impact	Assault Severity	2.55	.005/.007	.776	.086/.032	2.67
	Commitment	.627	.042/.018	2.37	.079/.060	1.32
	Control	1.91	.040/.017	2.43	.145/.055	2.65
	Rape Myth	-1.78	-.019/.018	-1.08	-.157/.079	-1.99

H6: Personality resources of Hardiness (Commitment and Control) were hypothesized to influence attributions inferred by victims . The hypothesis was supported. Both commitment and control were strongly associated with victims' attribution. The standardized parameter estimate for Commitment and Control was .20 (z= 3.28;p<.01) and .21 (z=3.43;p<.001) respectively.

H7: Personality resources will have a direct influence on victims' coping strategies. Although not significant, the results suggested that the personality trait of Commitment might have the most impact on coping strategies compared to the Control dimension.

H8: Personality will have a direct influence on victims' psychological response. This hypothesis was supported. Of the two hardiness constructs, control had a

significant effect on victims' psychological response. The standardized parameter estimated was .12 (z=1.91;p<.1).

H9: Victims' acceptance of rape myths will directly influence coping. As shown in Table 23, acceptance of rape myth beliefs had the least impact on victims' coping strategies. Whilst there might have been an association between the two variables, this association was not significant. In this regard, the acceptance of rape myth beliefs had a non -significant impact on coping.

H10: Acceptance of rape myth beliefs will directly influence victims' psychological responses. The survivors' acceptance of rape myth beliefs had a negative relation to victims' psychological response, thus, suggesting that an increase in acceptance of sex role beliefs resulted in a decrease of reported psychological response symptoms. The standardized parameter estimate was -.11 (z=1.78;p<.1).

H11: Acceptance of rape myth beliefs will directly influence victims' attributions. This hypothesis was not supported. The standardized parameter estimate was -.07 which might suggest that acceptance of rape myths have a negative effect on victims' attribution style. The overall standardized direct effects produced by the model to make a quantitative assessment of which composites and constructs were contributing most to the prediction of survivors' attribution styles are shown in Table 29.

Table 29: Standardized Estimates for Total Effects of Predictor Variables on Attribution

Dependent Variable	Predictor Variable	Total
Attribution	Assault Severity	. 048
	Commitment	. 204**
	Control	. 214***
	Rape Myth Belief	-.072

* p < .05, **p < .01, ***p<.001,****p<.0001

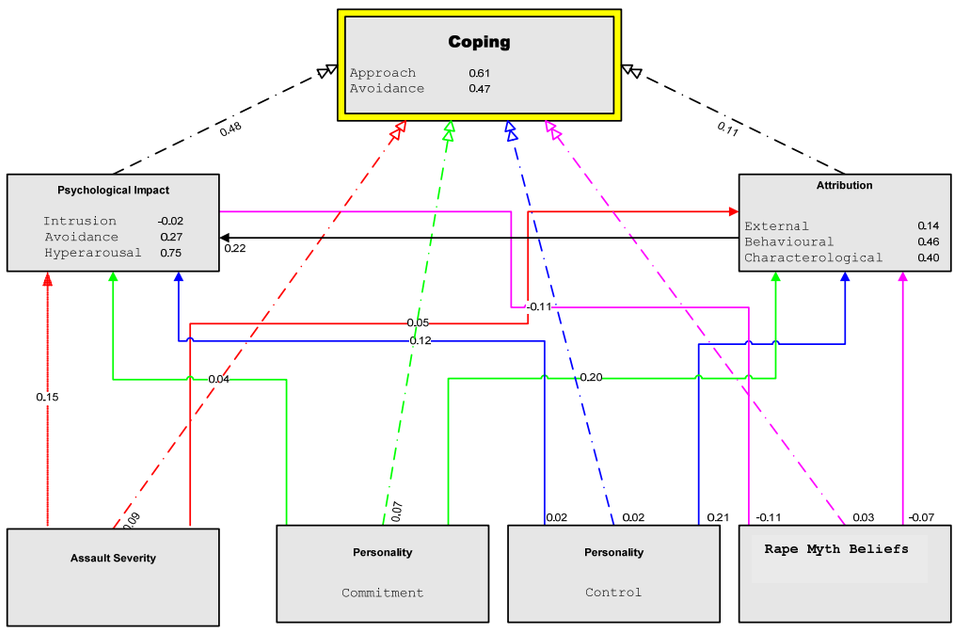
5.6.3 SUMMARY

The complete structural equation model with standardized estimates depicting all of the relationships in the model is presented in Figure 3. As discussed previously, we used a saturated model and therefore all paths (significant and non-significant paths) are shown in Figure 3. Some, though not all of the hypotheses for the model were supported. The exogenous variables predicted the endogenous variables and constructs as hypothesized. Moreover, hypothesized interrelationships among endogenous variables were supported by the data. In terms of total effects, coping was predicted to the greatest extent by the victims' psychological impact. None of the exogenous variables (assault severity, personality, rape myth beliefs, attribution and psychological impact) had a significant effect on coping with rape victimization. The total effect of assault severity on coping was the highest (z=1.87) among the other three exogenous variables, thus, suggesting that the level of assault severity may have resulted in increased use of approach coping styles. As hypothesized, the result indicated that assault severity had a significant direct effect on the psychological impact among rape survivors, thus, suggesting that the assault severity increased the survivors' Hyperarousal symptoms after rape victimization. The results on the hardiness personality constructs revealed that commitment and control were not significantly related to coping. However, the findings revealed that the two aspects of personality were strongly related to attributions made by the survivors of rape in this study. Making use of Behavioural and Characterological attribution styles showed a positive impact on psychological symptoms by survivors of rape, which in turn strongly influenced their coping with rape victimization. This suggests that the psychological response to rape in the present study was influenced by victims' attribution. More importantly, the role of psychological response in predicting coping is very significant. Although the two personality constructs had no relation to coping, control was found to have a strong relation to victims' psychological response.

Although the survivors' acceptance of rape myth beliefs was not able to predict coping, these results showed acceptance of rape myth beliefs to have a

negative relationship with psychological impact. Thus, this suggests that an increase in acceptance of rape myths may have resulted in a decrease of reported hyperarousal symptoms. In addition, acceptance of rape myth did not significantly predict victims' attribution.

`Figure 3: Final Model



CHAPTER 6
DISCUSSIONS, RECOMMENDATIONS AND CONCLUSIONS

In conclusion, it is important to highlight the most central implications to emerge out of the study as well as to indicate some limitation in the findings.

6.1 Central Findings

The purpose of the study was to examine the contribution of various factors in predicting victims' coping with rape victimization. In particular, this study sought to understand the direct and indirect effects of rape assault severity, rape myth beliefs, the influence of interpersonal resources of hardiness (commitment, control and challenge) and the impact of attribution in predicting survivors' psychological reactions and coping. The impact and coping with rape victimization has rarely been assessed in relation to the areas covered in this study. There is limited information available on how each of these factors predicts coping among African women survivors of rape who reside in the poverty- ridden townships of Gauteng, Western Cape urban areas and in the rural Limpopo province. The hypothesized model provided the framework for this research. In general, the results of this study confirmed the influence of psychological response and victims' attribution in predicting victims' coping strategies. Specifically, the findings suggested that the sample of rape survivors in this study (a) were similar across most demographic and psychological indices; and (b) identified similar levels of general post-rape responses.

The majority of the participants in the present study reported to have been raped by an acquaintance or someone known to them by sight only. One third of the participants were repeat victims of rape. These findings are consistent with data from archival sources and other representative studies depicting trends in violence within South Africa. It seems ironic that a country that has managed to overcome a harsh form of oppression and discrimination has failed

to draw the parallel between racism and sexism and between apartheid and patriarchy.

The mean score values suggest that victim the participants in this study were likely to attribute the causes of their victimization to external aspects and less to aspects of their character. The rape survivors in this study were also less accepting of sex role beliefs or myths about rape. Survivors of rape in the three provinces seemed to report more Approach coping strategies e.g., Precautionary behaviours at home and outside) and on the other hand also reported Avoidant (staying home, withdraw, keep busy) coping strategies. Participants reported a relatively moderate experience of psychological symptoms of intrusion, avoidance and hyperarousal. Respondents in the present study gave responses suggesting an orientation of Commitment to what they are doing in various areas of their lives as well as a sense of Control over the causes and solutions of problems. As indicated in the results section, the Challenge construct of the Hardiness scale could not be adequately confirmed among the respondents of this study. The Control and Commitment dimensions were also found to influence the attributions used by survivors of rape in the present study. Acceptance of rape myths had no impact in predicting survivors' coping strategies. To an extent these findings provide some insight to how survivors of rape in these communities give meaning to their experiences of sexual assault violence.

Results relevant to the research and the model are discussed next, followed by a discussion of the limitations of this study and directions for future research.

6.2 Model for Coping

The model was developed and tested. Included in the model were three endogenous variables and three exogenous variables. The most compelling result from the current investigation was the initial support for the model; and that it was a good fit to the data, accounting for 14.6% of the variance in the two dimensions of coping (Approach and Avoidant coping). The model met the criterion for goodness of fit and was therefore accepted as a model that fit the data. The relationship results within the actual data matched the hypothesized

relationship as specified in Fig 2. The model is discussed next in relation to the research questions developed for this study. It is hoped that this format will facilitate the readers' understanding of findings related to each particular aspect of the model. The questions are presented according to the sequencing of variables presented in the model, beginning with the impact of exogenous variables. Following the discussion of each research question and their respective findings, is a well-argued discussion summarizing the impact of the suggested variables on rape victims' coping strategies and the implications for future research.

What is the impact of assault severity, commitment and control, acceptance of rape myth beliefs, attribution and psychological response on coping?

This research question addressed the issue of the extent to which these factors influence coping with rape victimization. At the heart of this issue is the delineation of the process through which victims' coping could be linked to the rape characteristics (assault severity), personality traits, acceptance of rape myth beliefs, and also to the victims' psychological responses and attributions.

Basically, the data revealed that survivors of rape in the present study endorsed Avoidance and some Approach coping strategies. For example, victims of rape in the present study used Approach coping strategies such as taking precautions and others embraced emotion-focused coping strategies of Avoidance. These findings are consistent with previous literature suggesting that victims most often embrace both coping styles in cases of interpersonal crimes. Previous research findings suggest coping strategies as potential mechanisms through which survivors of rape may adjust to and deal with their victimization (Santello & Leitenberg, 1993). The findings in this regard are equivocal with respect to the function of Approach and Avoidance coping strategies. However, the focus in the present study was mainly on factors influencing coping with rape victimization. One of these factors includes assault severity.

How does assault severity influence survivors' coping?
Is the influence direct or indirect?

Most studies show that the more severe the assault, the more intense the subsequent symptomatology. Severity, in terms of force, is a variable that has consistently been shown to be associated with maladjustment (Koss et al., 2002, Ullman, 1996). The majority of studies have examined adjustment in terms of psychological adjustment. As to assault severity, it was hypothesized in the present study that assault severity would directly influence coping strategies. However, this hypothesis was not supported among the group of rape survivors in the three provinces. Although not statistically significant, the direction of the relationship suggested the possibility that rape assault severity may be associated with influencing victims' coping strategies. However, the results also suggested an indirect effect of assault severity on coping.

In the findings, neither acceptance of rape myths nor personality traits (commitment and control) had significant direct relations with coping. This does not mean that acceptance of rape myths and personality traits had no relationship to coping. It's just that this study presented a model in which it was implicitly presumed that the direct relationship would be the meaningful one. The results also indicated an indirect relationship between coping and the control dimension of hardiness. With regard to the role of rape myth beliefs on coping, the results showed a miniscule (statistically non-significant) positive relationship between coping and acceptance of rape myths. This is discussed further in the next paragraphs.

If indirect, does the influence on coping occur through personality (commitment and control), through the acceptance of rape myths, through attribution and / or victims' psychological response?

The indirect effects revealed that assault severity had a strong positive relationship with the victims' psychological impact, which in turn was strongly related to victims' coping strategies. Thus, the process of coping is not directly through assault severity but also takes into account the exerted psychological

impact on victims. This is an important finding as it confirms the deleterious consequences of assault severity on victims' psychological responses. Several other studies have found that perceived threat and physical force, including the use of weapons, are related to increased psychological distress among victims of rape (Bownes *et al*, 1991, Epstein, Saunders & Kilpatrick, 1997). Koss *et al.* (2002) also found the rape characteristics (severity) to have direct effects on re-experiencing memory and on physical symptoms. Therefore, the results in the present study suggest that the influence of assault severity on coping is indirectly through victims' psychological response to rape. This suggests that psychological response plays an important role in predicting coping with victimization.

How does assault severity influence survivors' psychological response? Is the influence primarily direct or indirect?

As hypothesized, the results revealed a positive relationship between assault severity and psychological distress, thus suggesting that increased assault severity (defined in terms of use of physical force, type of physical force and / or presence of weapons) resulted in increased hyperarousal symptoms. These findings related to assault severity also contribute to the growing literature on the context of rape (e.g., assault severity, previous rape assault history) and coping of rape survivors (Neville et al., 2004). As alluded to in the previous paragraph, these findings are consistent with previous literature suggesting rape to be more likely than other traumatic events to result in psychological distress (e.g., PTSD), at least in part because of specific traumatic characteristics (e.g., physical injury).

Contrary to expectations, no significant relation was found between assault severity and attribution. The results of the present study showed no significant impact of assault severity on attribution, thus, suggesting that assault severity was not a significant predictor of survivors' attribution styles. Previous research has provided support for the role of assault severity in predicting victims' attribution. The findings in the present study are inconsistent with previous research findings that have found assault severity to have an influence on

victims' attribution styles. Specifically, Koss *et al.* (2002), found that assault severity directly increased external attribution styles among rape survivors. Neville *et al.* (2004), also found that severity of the last assault among female college rape victims had a direct effect on survivors' cultural blame attribution (external) as well as on victim blame attributions (internal). It is possible that other factors of the rape context (not measured in the present study) may be more influential in predicting attributions more than assault severity. On the other hand, the unexpected findings may be due to the definition and the way measurement of severity was done in the present study.

How do the control and commitment personality traits influence coping?

Research in the field of stress-resistance suggests that individuals with resistant resources such as Hardiness personality traits are better able to deal with stress. Hardiness represents a general orientation toward self and world expressive of commitment, control and challenge. Although it may not be entirely appropriate to relate the total Hardiness score or all components (challenge, commitment and control) to earlier published work, the present findings yielded a non-significant association between the hardiness constructs (commitment and control) and coping. Consistent with other studies (Chan, 2000), the three components of Hardiness were not clearly differentiable in this sample of South African female survivors of rape. Rather, dimensions of commitment and control emerged from this research. The previous studies hypothesized that hardiness might alter the perception of events to make them less stressful (Rhodewalt & Agustsdottir, 1984) and might even facilitate transformational (optimistic and active) coping (Maddi & Kobasa, 1984). Contrary to previous studies, which examined the two hardiness components separately, the predicted relationship between commitment and control with coping was not demonstrated in this study. It is possible that the lack of relationship between the two hardiness constructs and coping in the present study may be reflective of the coping variables that were measured. It is possible that control and commitment exert their coping enhancing effects through other means than approach and avoidance coping strategies.

A closer examination of the data revealed that although the direct relationship between hardiness and coping was not significant, an indirect relationship between the control dimension of hardiness and coping was found. More importantly, the findings suggested the control dimension to have a positive relationship with psychological impact of rape victimization.

It is possible that the feelings of anger, being watchful and on guard (psychological impact) could be ways through which survivors attempt to hold on to their sense of control over their lives. It may well be the case that the expression of psychological distress is the path through which victims cope effectively with rape victimization. Nevertheless, the findings presented here are inconsistent with the hypothesis that hardiness alters the effects of stress and trauma. In the present study, control was related to the psychological response of Hyperarousal. Contrary to previous findings suggesting the possible role of hardiness as a buffer (Oulette, 1993), the results presented here suggest that survivors of rape believing in some measure of control over the causes and solutions of problems also expressed psychological distress post-rape victimization.

This leads to a question as to why Control should influence psychological response and not coping directly? The possible explanation is that given the victims' sense of control, the expression of emotional distress is a response to the immediate situation and not a defining factor for the future. Victims' sense of control is not affected by the emotional trauma caused by the victimization but serves as a way through which they can maintain their sense of control. In other words, the emotional distress could be seen as one way of acknowledging the event or trauma to enable the victims to cope with the victimization more effectively. Therefore, the buffering effect may not necessarily be reflected in terms of non-existence of emotion but also through expressions of psychological symptoms. These findings could be suggesting that some form of intrusion, avoidance and hyperarousal might be better considered as indicators of emotional processing rather than as symptoms of disorder in terms of distress. The women's response in this regard could also be influenced by the overall tolerance of violent behaviour in these communities. Or, could it be one

form of suppression and normalizing what is not normal? It is possible that given the relatively high levels of crime in the township and the fact that sexual violence against women is experienced within everday lives, the response to rape victimization reflects the reality of these women's lives and indicative of a culture of acceptability of personal violence in the community. Therefore the meanings women attach to to their experiences of sexual violence and rape is filtered through their social context.

Furthermore, the findings suggested that both control and commitment traits (more so the control dimension) significantly influenced victims' attribution. These findings are important as they add data to the literature on the personality dimensions of commitment and control and can help explain the link between attribution and coping.

How does psychological response influence survivors' coping?

The results also showed that the psychological impact, in particular hyperarousal, intrusion and avoidance symptoms had the most influence on coping. Thus suggesting that psychological impact post-rape victimization triggers coping with rape. This may take the form of either of the two coping strategies (Approach or Avoidance). Therefore, in the event of a traumatic event such as rape, the expressions of psychological impact may prompt survivors to find a way to deal with rape victimization, which could be through either of the two coping strategies.

The elevated anxiety symptoms explained through hyperarousal, avoidance and intrusion in this sample have been found to be also prevalent among survivors of rape as well as in other studies of trauma. For example, Hoffmann (2002) found that all South African students who experienced unwanted sexual activity reported intrusive thoughts and avoidant behaviours. These reactions are also similar to those reported within PTSD, namely, arousal and avoidance (Gilboa-Schechtman & Foa, 2001). The most compelling result from this study is the fact that psychological response was found to have the greatest effect in predicting survivors' coping. Contrary to previous findings that have used

psychological impact as an indication of adjustment, the findings presented here suggest that psychological response can be one of the determining factors in coping with rape. This could further be interpreted as suggesting that the extent of psychological distress may help determine the coping strategies to be used by victims of rape. This direct relationship means that psychological response played an increasingly important role in the development of coping strategies.

How does attribution influence survivors' coping?

As evidenced in previous research, participants in this study appeared to equally engage in internal (behavioural and characterological) and external attribution styles. This suggests that the two types of self-blame attribution were not clearly differentiated among this sample group. These findings are consistent with the previous research that suggests the victims of rape use the two self-blame attributions to explain the causes for their victimization (Frazier, 1990, Ullman, 1996). Furthermore, the results showed that greater endorsement of self-blame (behavioural and characterological attribution) and external attribution resulted in increased feelings of anger and irritability, jumpiness and exaggerated startle responses, trouble concentrating, and psycho-physiological arousal. The findings further support the detrimental role of behavioural and characterological attribution as reported in previous findings (Arata, 1999; Frazier, 2003; Frazier & Schauben, 1994; Koss, Figuerdo & Prince, 2002). For example, Frazier (2003) found that survivors of rape who reported more behavioural self-blame (i.e., attribute the assault to controllable past behaviours) also reported more distress. Similarly, Neville *et al.* (2004) found that greater endorsement of victim blame attributions predicted lower self-esteem among Black and White college women rape survivors. In this regard, no form of self-blame appears to be adaptive.

Relating to the hypothesis in this study, the findings suggested that attribution styles as explained by behavioural and characterological attribution and external attribution had a close but not a significant direct influence on coping. These results could be explained by the lack of differentiation (possibly due to the socio-cultural context) between characterological and behavioural attribution

in this sample of women. It may well be the case that both characteroloical and behavioural attributions may not be critical in the process of predicting coping but necessary in terms of determining the psychological impact of rape victimization. The results of the total effects suggest that victims' attributions may have a significant influence in determining victims' coping strategies. Previous findings have suggested attributions to have an important influence in the recovery from rape (Frazier & Schauben, 1994). In the present study, the recovery is interpreted in terms of coping.

As to attribution, the findings in this study also revealed an indirect effect of attribution on coping through psychological impact. Here it was revealed in an indirect relationship that attribution predicted victims' coping strategies through the psychological response symptoms of hyperarousal. Attribution showed an overwhelmingly direct relationship to psychological response. Victims' psychological responses were directly predicted by the attributions in the model. These findings are supportive of previous research that links use of both internal (behavioural and characterological attribution) and external attribution styles to distress (Frazier, 2000; Frazier & Schauben, 1994). Specifically, previous studies have found a significant positive relationship between viewing one-self as a victim type (characterological attribution) and the levels of depression experienced (Regehr et al., 1999). Regehr et al. (1999) also found a significant correlation between attribution of responsibility to societal factors (external attribution) and scores on the depression measure of BDI. The findings in the present study therefore suggest that the victim's interpretation of events, in terms of believing that factors such as poor personal judgement and violence on television contribute to the occurrence of rape, result in significant psychological distress. Therefore, the evidence would suggest that attribution styles help influence the survivors' psychological response.

As hypothesized, Commitment and Control dimensions of hardiness had a significant direct impact (respectively) on attribution styles, thus suggesting that survivors of rape who believed that they were in control and also found meaning in their lives (commitment) were also more likely to explain the causes for being raped through self-blame attributions of behavioural and characterological

attribution. In this regard, the individuals high in control and commitment were more likely to have a healthy attribution style, that of attributing the cause of rape to controllable aspects of oneself (e.g., behavioural attribution).

To an extent, these findings provide some important support to previous research on perceptions of control (past, present and future) and recovery from rape (Frazier, Steward, & Mortensen, 2004). In this regard Frazier *et al.* (2004) found that perceptions of future control and the belief that future assaults are less likely are associated with better adjustment. Relating this to the present study, an orientation of Commitment and Control of events may be an adaptive process through which survivors of rape could ensure that they attribute their victimization to controllable aspects of oneself instead of blaming their character or external factors that they may not be able to control.

How does the victims' acceptance of rape myths influence coping?

The findings related to acceptance of rape myth beliefs also contribute to the growing literature on the post-rape recovery process. In common with the other exogenous variables in this study (assault severity, commitment and control), the acceptance of rape myth beliefs had no significant influence on coping. Thus suggesting that acceptance of rape myth beliefs did not have an influence on survivors' coping strategies. This could be based on the fact that rape myth beliefs had a low or no meaning to survivors of rape in this study. The survivors of rape in this study appeared less likely to endorse or rejected the rape myth statements. Given that slightly more survivors of rape in this study were in ages below 30 years of age, these results could also be reflective of the shift (positive) in thinking and understanding about the role of women in this group of rape survivors. Such thinking has far reaching implications in terms of enhancing the role of women and ultimately could help bring about the social change in these communities.

However, the findings showed that relative acceptance of rape myth beliefs resulted in a decrease in expressions of hyperarousal symptoms. There are several possible explanations for why an increase in rape myth acceptance

resulted in lower levels of psychological symptoms. One possibility is that the acceptance of rape myth beliefs may be closely tied to gender socialization aspects, which sanction male superiority. Because of such socialization, women who accept these myths may be more likely to accept rape within this context of normalization and therefore exhibit fewer psychological reactions. Although respondents reported relatively low acceptance of rape myths, it is nonetheless regrettable to have to report very low endorsement and acceptance of rape myths in this study. It seems that despite the increased levels of sexual assault education and victim empowerment programs in the past few years, these have not yet fully informed the public about the issue of rape. While very few of the women in this study endorsed rape myth beliefs, the issue still needs to be addressed. In this regard, the intervention programs should continue to aggressively challenge myths that blame women (the victims) and deflect responsibility from the rapists. Programmes should be designed to address the culturally ingrained attitudes toward rape and women. These should be targeted at both the victims and the perpetrators of such crimes including the potentially aggressive individuals. Such myths serve to silence victims and therefore prevent the prosecution of rapists.

6.2.1 COMMENTARY

The present study attempted to extend the understanding of rape recovery through examining the different roles played by the identified factors in predicting coping with rape victimization. Despite the fact that not all of the factors are directly linked to coping, it is apparent that a number of variables seem to have greater bearing on symptomatology than they do on coping. It is also clear that the nature of a person's symptoms may affect their coping. Moreover, there are some interesting results relating to the sample of women who participated in this study. Firstly, a third of survivors of rape in this study were repeat victims of rape who also reported to have been raped by an acquaintance and someone known to them. Thus, confirming previous assertions that South African women are at greater risk of violence in their homes and communities. Therefore the women's rape history and offender relationship could possibly explain the low to moderate overall psychological

response to rape victimization and average endorsement of withdrawal coping. It is certainly likely, however, that prior rape victimization may enable the women to appraise the rape as less harmful, functioning as a powerful technique in the control of psychological distress. The past levels of psychological symptoms from previous rape may have influenced the process of coping with the current rape victimization. Furthermore, the fact that slightly more attributed their cause for victimization to external factors than to aspects of their character and at the same time having a sense of control over the causes of problem seem on one side to confirm the pervasiveness of violence in the townships and women's understanding and awareness of their socio-cultural environment which in turn fuels violence. In some way the women's sense of control symbolises a resilient attitude amidst complexities in their society. This could possibly in turn explain the reason why women attribute the causes to their victimization to external factors more than to aspect of themselves. Another interesting finding relates to the fact that the survivors of rape in this study reported low acceptance of rape myth. This is a useful reminder that despite gender inequalities and the broader cultural attitudes surrounding women's role in the society, not all women are immersed in these cultural beliefs. Possibly, one could attribute the reasons for this shift to numerous interventions to raise issues around gender norms and women's rights in the mass media and in these communities. More of these sorts of forums and initiatives are required at a large scale to challenge general tolerance to rape and cultural beliefs that often shift the blame of responsibility for the rape with the victim.

The women in this study have broken a code of silence that governs sexual violence. Given the fact that they come from communities with a distinctive culture of violence wherein patriarchy is embodied at all levels (e.g. their husbands, partners, brothers and leaders), the women in this study have risked being labelled unpatriotic, troublemakers, untrustworthy and deceivers by reporting these cases and also seeking out help from the professionals.

6.3 Theoretical and Research Implications

The aim of this study was the examination of the direct and indirect effects of assault severity, personality traits (commitment and control), acceptance of rape myths, and psychological impact on coping with rape victimization. Support was found for a model in which psychological impact was central in predicting rape survivors' coping. Although a great deal has been written about the impact of and coping with rape victimization, this study sought to improve on prior research by using a broader range of measures to predict coping with rape victimization. This study thus provided a relatively rare opportunity to examine the role of some of the very critical factors in the study of rape (discussed above). This study also expanded existing knowledge on rape survivors by testing the model among female rape survivors in South Africa. Certainly, the model presented in this research, as but one plausible explanation for the development of coping strategies among victims of rape, demonstrates the importance of bringing together assault characteristics, personality, victims' causal explanations (attribution) and psychological impact.

The results of this study imply that while assault severity, personality and rape myth beliefs may have a relationship with coping; this relationship is strongly mediated by victims' psychological responses and to an extent by the survivors' attribution. The finding that psychological impact had a strong and significant impact on coping with rape allows for a possibility of re-examining the theory that suggests that coping is a function of psychological adjustment. In other words, there is a possibility that psychological response to rape victimization is one of the most important predictors of coping with rape. These findings could lend some support for the development of other variables that may influence coping. Research on coping has direct implications for prevention and intervention. If the factors leading to coping with rape victimization can be identified and strengthened, this could have far-reaching effects on the lives of many rape survivors.

An interesting finding in this study is that attribution had a significant impact on survivors' psychological response, a finding consistent with the other research.

Thus, it does appear that psychological distress is influenced by the attributions that victims infer after rape victimization. These findings provide support to previous findings for example, Josephn *et al.* (1993), who found that internal causal attributions for disaster-related experiences were associated with symptoms of intrusion. Future studies should consider both the type of attribution styles and the type of psychological response to rape. Specifically, future research should investigate the specific elements of attribution that may impact on certain types of psychological response. This could provide more insight into the specific aspects of psychological responses that could be predictive of coping. Another aspect that could potentially expand research on coping, centres on the incorporation of the various elements of coping that may have been overlooked by the measure in this study, for example religious coping. Several studies have examined the consequences of using religious coping in stressful life situations. These studies have suggested a salutary role for religion as a coping strategy (Dunkel-Schetter, Feinstein, Taylor & Falke (1992). Perhaps it may be found that the coping strategies used in this study were not the most appropriate subsequent to rape victimization in the present group of rape survivors. The situation (rape) could place a different set of coping demands on the individual. Hence, further research is called on for on this issue and other potential coping dimensions. In addition, coping can further be explored in terms of the impact of rape victimization on survivors' world beliefs or 'just world beliefs', changes in one's sense of self, changes in relationships. All these factors could possibly provide a deeper understanding of what constitute coping and adjustment with rape victimization.

Moreover, given the strong predictive role of psychological response to coping, future studies should consider looking at this relationship further in terms of investigating the role of all these variables in predicting psychological response. Specifically, future research could examine the extent to which the nature of coping that a person utilizes will determine their psychological response to rape victimization. More importantly would be an investigation into the role of all these factors in predicting psychological response to rape.

Several studies have stressed the role of dimensions of Hardiness in mitigating stress. In particular, these studies have emphasized the influence of personal resources - commitment, control and challenge. These personal resources have been hypothesized to shape how victims of stressful life events respond to events. The failure to differentiate hardiness into its three components among the South African female victims in the present study needs to be further pursued. This could imply investigating the appropriateness of the measure of Hardiness within the South African population's victims of stressful life events. Thus, further studies should aim to address the question of whether commitment, control and challenge would relate differently to different outcome measures. Certainly, the evidence regarding the hardiness dimensions as stress moderators is somewhat equivocal in this study. It is important that a full understanding of what constitutes hardiness is achieved and, more importantly, that the role of each of the three dimensions in moderating stress is analysed. However, the present results extended past findings on the assessment of hardiness in non- South African settings to South African black female survivors of rape with some notable differences. The model used in the present study found control to be the only dimension that significantly influenced psychological distress among rape survivors. Future studies could examine the specific psychological symptoms related to the orientation of control. The results presented here provide a framework for future studies. Other measures of resilient personalities such as self-esteem, optimism (Major, Richards, Cooper, Cozzarelli & Zubek (1998)) and perceived control (Frazier, 2003) should be considered in the future. Specifically, future studies should understand other resources that women are likely to draw in the face of adverse conditions of sexual assault.

What can we say about the role of rape myth beliefs in the process of recovery from rape victimization? Research into rape myths and sex roles suggests that endorsement of rape myths (including adversarial sexual beliefs) can be predictive of attitudes toward rape and sexual harassment. Research on rape myths has centred on the question of how others (observers) use such beliefs (e.g. men vs. women). This paradigm has been expanded in the present study to include the responses from women who accept these beliefs. One of the

most intriguing findings in this regard is that acceptance of rape myths had a negative influence on psychological impact. Thus, women who endorsed rape myth statements showed a decrease in psychological response. This pattern of response is interesting. The possibility exists that this could be a process through which victims of rape normalize the incident of rape in their lives, which then directly influences their psychological response to victimization. The possible question in this regard is whether this is an appropriate process through which survivors of rape can recover and cope with rape? Is the decrease in psychological response indicative of adjustment? The answers to these questions could potentially expand the knowledge on psychological response and coping with rape.

6.4 Implications for Practice

Although the focus of this study has been on the role of assault severity, rape myth beliefs, personality (control, commitment, and challenge), attribution and psychological response in predicting coping, it is important for this discussion to move beyond understanding of these factors and also focus on the changes that must take place so as to protect the survivors of rape in this country. Considering the consequences of rape violence against women, understanding of the process of coping ought to be a prominent research topic. There is a need for an intervention process that has the capacity to incorporate a wide range of coping mechanisms that are thought to be important in recovering from a traumatic life experience, such as rape. It is acknowledged that the role of assault severity, rape myths and personality might be small. Significantly, attribution and psychological impact are some of the variables that are modifiable and can improve how victims cope with rape. This presents exciting implications for intervention. Intervention might be targeted at the efforts to change the norms and beliefs about rape. Changing the beliefs about rape could help victims blame themselves less for their victimization and they will also be less likely to suffer from acute psychological distress. The cognitive behavioural scientist postulates that psychopathology stems from conclusions being drawn from the environment and that changing such conclusions may therefore lead to a change in emotional state. Attributions have been shown to

be very important factors in determining victims' psychological response. Therapeutic intervention may focus on enabling survivors of rape to alter their perceptions of the causes of the rape and other events that took place during the rape (hitting, slapping and use of weapon). This may seem difficult, however it is the present authors's view that therapy in this regard could aim for more realistic attributions, which may involve shifts in different directions depending on the individual's situation and condition. This could involve representation of the event (Foa, Rothbaum, Riggs & Murdock, 1991). This type of therapy may enable the rape survivors to reappraise the meanings of their own experiences and thus result in a change in their emotional state and ultimately lead to a facilitation of coping. Therefore, therapists can focus on the survivors' outlook about the rape.

Mental health professionals also have a key role to play in the prevention of this type of violence. As many distorted beliefs (rape myths) still exist in South Africa around the role of women and the rights of men over women, educational programmes are critical.

Much more research is needed on expanding the definition of coping of rape survivors and the effectiveness of those strategies. This will enable stronger statements to be made about the direction of the relation between coping strategies and outcomes.

6.5 Limitations

The current study improved on prior studies of coping with rape victimization in a number of ways. The strength of the current study is the development and testing of a comprehensive model of psychosocial predictors of coping with rape victimization, in a sample of South African women from three provinces. The 1-month follow-up period for assessing coping and adjustment was slightly longer than other studies that have generally assessed coping within 2 weeks of victimization. Multiple measures of predicting coping were assessed. The data in this study provides some insight into which of the variables are most strongly related to coping. Although this investigation addressed some of the gaps in

the literature, there are a number of noteworthy limitations of the study. Certainly, weaknesses in this research require that some of the conclusions be viewed as suggestive rather than conclusive, with regard to the alleged relationships between the factors.

One of the primary limitations in the study pertains to the fact that the model has a saturated fit. This is due to the fact that there were many unknown coefficients to predict. A model modification strategy (an exploratory approach that incrementally respecifies parameters) was considered however; there were no modification indices. There were too many instruments and variables included in the model with low correlations. Typically, in SEM one sets out to have multiple (at least) indicators for each construct. When using three or more measurable variables the model could not converge. Therefore, the latent variables were measured with only single indicators (except for the outcome variable of Coping). Guided by theory this could be improved on in future studies further by looking primarily at the two most significant paths (e.g. psychological impact and attribution) in predicting coping. It is perhaps valid to also argue that coping may also influence a person's symptom profile. Therefore, future research should further investigate the impact of the variables included in this study to predict survivors' psychological response. Such information will further contribute to the understanding of psychological adjustment to rape victimization. Despite the fact that previous rape victimization information was collected in the present study, this information was not incorporated into the model on predicting coping. Significant research has documented that a history of sexual assault in either childhood or adulthood is associated with increased rates of psychological distress (Golding, 1999). Therefore, prior victimization aspects (or sexual assault history) should also be included in understanding survivors' psychological response and coping with rape victimization. It is also important for future research to consider other interpersonal violence experiences such as intimate sexual violence.

In addition, the data presented in this study does not address whether survivors' reports of coping reflect actual life changes in the coping process. Therefore, future studies can extend the understanding on coping to specifically include other measures.

One other critical factor not considered in this study in the process of coping pertains to the effect of appraisals in coping. The findings in some of the previous studies have found that cognitive appraisal (primary and secondary appraisals) of stressful life events direct the choice of coping strategies in which individuals engage (Lazarus, 1993). An inclusion of appraisal in future studies on coping with rape could enhance our understanding of the mediation role between rape victimization and coping strategies.

Specifically, this study suffers from some methodological questions of size and representativity. The lack of a large enough sample size prevented us from more completely assessing the model and conducting different path analyses across the three provinces. The people who chose to participate in this study were only a subset of the larger pool from which they were drawn. It should also be noted that while an effort was made to solicit the opinions of a diverse group of individuals in order to increase the chances of generating a wide array of ideas, this was limited to women in the African townships.

Because of the recruitment method (i.e., solicitation and sample convenience from hospital-based rape counselling centres), this group of participants cannot be assumed as representative of all rape survivors in South Africa who were raped in this period, but only as representative of the subjects who were instituting legal proceedings against the rape perpetrator and chose to contact an association devoted the assistance of rape victims. It is possible that victims who came to the counselling centres were more likely to have been injured. It is however, possible that even if the sample were obtained through media advertisements, the same problems inherent in recruiting “opportunistic” rather than truly random samples would be present. Furthermore, the use of the clinical sample in conducting this study poses a number of other limitations to the generalizability of these findings. First, all of the raped women in this study were given the opportunity to complete the survey through their contact with an organization or individual providing mental health services to survivors of rape. Because the sample was obtained through respondents’ contact with the institution, the findings cannot be generalized to those women who have been raped but who have not come into contact with the counselling centres.

Because most survivors do not seek immediate help, and may, in fact, not seek help at all; these findings need to be replicated in more representative samples. It is also possible that this volunteer sample only consisted of survivors who had been better able to cope with victimization. The use of the women in these centres precluded recruitment of women in areas without counselling centres or victim assistance programmes. However, such excluded individuals may constitute a significant proportion of the South African victims' population as majority of women do not seek out help or report the cases to the police.

In addition, the present findings were obtained using a predominantly Black sample of respondents who made use of the victim empowerment centres in the three specific areas of the country, who therefore cannot be assumed to be representative of South African female victims of rape in general. We could also presume that raped subjects referring to an association devoted to the psychological and legal assistance of sexually abused women (such as Thuthuzela Care Centre) would be more prepared to describe their symptoms. It is also possible that some symptoms or psychopathological areas were not fully addressed or considered in the study. It is also possible that the women who participated in this study were more informed in accessing the services offered through NGOs and also the severity of the attacks could have created more credibility for the women to seek help. In addition, it is quite possible given the fact that one-third of women were repeat victims of rape, may explain the reasons for women seeking advice and healthcare professional services at the empowerment centres.

The other main limitation of this study is the reliance on self-report measures. The use of self-report measures may result in bias, due to the limiting format on which questions are answered and thereby introducing potential recall biases. Future work should include clinic interview assessments of psychological impact. Furthermore, there may also be an issue with the unrealiability of instruments due to the fact that some of these measures have never been used in a sample of rape victims. Also, participants were contacted only once, thus precluding a longitudinal analysis of outcomes.

In addition, the present study focused primarily on African female rape survivors. This may limit generalizability of these findings to other South African racial groups, in particular female victims of rape in the Coloured, Indian and White communities. Given the relatively high prevalence rates of rape across South African, a study into rape prevalence and coping in other groups is important.

In addition, the sample used in this study excluded victims of intimate partner sexual violence, which are suggested, to be significantly high in South Africa (Dunkle *et al*., 2003). This is an area for further research since so few women report these experiences when they occur. Further, there are other important groups such as university female students, women living in the different communities and surburbs that could be included in future research. The assessment of same sex victimization was also not assessed in this study.

The study was not designed to estimate the coping process over a shorter or longer time. What our model was intended to explain were the hypothesized intervening levels of mediation in coping with rape victimization within a month post-rape victimization. One can always question whether the present snapshot taken at one point in time represents the processes, as they would unfold in the other post-rape periods. Thus, information about the development of post-rape psychopathology is limited. The results presented here provide little or no evidence to how early assessment relates to later distress levels. It is also possible that given the recent nature of the sexual assault victimization as presented in this study, current emotions at the time of assessment could have led both to an over-representation and an under-representation of the experience. The next step is to analyse longitudinal data collected over a longer period, beginning within 3 months of assault. As a 3- month period has been considered a plausible period for the criterion to be specified as chronic PTSD; it is possible that longer assessment periods would have revealed other patterns of recovery and coping. This may help to clarify the role of previous rape and severity in predicting outcomes.

The other limitation in this study is the fact that the investigation on the psychological effects of rape on the victims was limited to PTSD. We recognize that PTSD is not the only disorder that may be associated with rape trauma. Rape in general is a risk factor for a host of major mental health disorders and problems. Therefore other forms of mental health problems such as anxiety, and depression should be considered. Furthermore, past levels of psychological symptoms from other sources were not assessed in this sample. It has been shown that a history of psychological difficulties prior to a sexual assault influence psychological symptoms. Of course, in the absence of this information, one cannot determine how much previous psychological distress influenced later psychological response to rape victimization.

Thus we also recommend that future studies should include a comprehensive assessment of all potential mental health sequelae. With the current problem of HIV/AIDS in South Africa, a more in-depth investigation on the impact of rape in the spread of HIV/AIDS is critical. Of the 5,3 million South African infected with HIV/AIDS, women and girls bear the highest infection rate with many being exposed to the virus as a result of sexual assault (Hartleb, 2005).

While recognizing the importance of the two coping strategies and their role in managing stress, it is also important to note that despite the theory's helpful framework in understanding the coping dispositions, other methods of coping with rape victimization such as spiritual coping and social support were not considered in this study. Research on coping with stressful life has begun to point to the importance of variables such as religion in coping with victimization. A religious worldview may help victims make sense of and find meaning in a traumatic event. In this regard various aspects of religiosity are positively related to positive life change (Frazier, Tashiro, Berman, Steger, & Long, 2004). Social support has also been suggested as a valuable resource in coping with stress. In this regard, several studies have linked social support with higher levels of acting coping (Leslie, Stein & Rotheram-Borus (2002)). Therefore, future research should explore not only the use of the problem and emotion focused-coping strategies but also use a variety of coping measures to assess the different elements of the coping process. Research should include

measures of new facets of the coping process being discussed in the broader literature such as social support, religious beliefs and cultural beliefs. Given that coping is a process, it is important to look at how coping with rape may change over time. It is possible that the coping strategies used during the initial aftermath of the rape as in the present study may differ from those used later on. This highlights a need for longitudinal research. Such work may increase our understanding of survivor's functioning and recovery process. It is also here that the rape field of study may benefit from continuing to incorporate some of the other variables discussed in the broader coping literature. For example, another coping related variable that appears to be related to adjustment is religiosity. A religious worldview may help victims of rape to make sense of the their victimization (Tedeschi & Calhoun, 1996).

We attempted to achieve some comparability with prior research by using the theoretical measurements mostly used in Western cultures. While some of the measurements used in the present had been used in some studies of trauma and violence in South Africa (e.g., Coping, Impact of Event for psychological impact, some of the structures were not consistent and their factorial validity could not be positively confirmed among the sampled female rape survivors in South Africa. For example, the Challenge dimension of hardiness could not be clearly differentiated in this sample. There is a possibility that the benefits of hardiness could be interpreted differently within the African culture of the sampled rape survivors. Other possible social structural factors may play an important role in understanding the interpretation of hardiness within this specific group. Therefore, there is a need for future researchers of hardiness to include ethnically diverse participant samples of rape victims in South Africa and to provide clear information about the role of hardiness across different sample populations and in an inter-group context. The same applies to all the measures used in this study. It is important for future research to consider the extent to which aspects of culture (taking into consideration that there is not one culture) have a role in influencing survivors response to rape victimization.

This research has generated almost as many research questions as it has answered. The model presented here could be validated in another sample.

Furthermore, separate models could look at the different cultural and racial groups of survivors of rape in South Africa. Work like this sets a foundation for exploring the ways in which research on rape can add to the understanding of process of recovery from rape victimization.

6.6 Conclusion

The present findings represent an important advance in the literature with respect to prevalence, and coping with rape victimization by female survivors of rape in South Africa. In contrast, most studies have examined the relationship between coping and adjustment. This study moved beyond the simple main effects model and attempted to account for key variables that negotiate risk within the individual victimized through rape, to an understanding of the factors contributing to victims' coping with rape. The main purpose of the current study was to explore the impact of some of the previously un-assessed mediational factors of coping with rape victimization. The model results suggest some new research questions that might increase the field's understanding of the coping of rape survivors.

Future research should examine the fit of the model when applied to responses of rape victimization over time. Much more support is required for the validation of the instruments used in the current investigation. Given the cultural diversity in South Africa, it is important to understand the influence of the predictive factors in the coping of women rape survivors across all racial groups. It is also important to note that the cultural definitions of rape have important implications for the physical and mental health of rape victims because they can shape their responses to rape in a variety of ways. Therefore it should be kept in mind that a full understanding of rape and sexual assaults requires an understanding of meanings and definitions, as well as the context of rape experiences. In this regard, the cross-cultural data on rape could help ensure a definition that is inclusive enough to curb the silencing of women in their conceptualisation of their experience. An inclusion of a broader representation of women from different areas of the South African society may alter these results and provide meaningful insights. In addition, it seems particularly relevant for future

researchers to explore variables that may account for coping, such as effects of interactions within church structures and other societal groups on the coping of rape survivors. Such research may also assist in the identification of resources that are important for recovery following rape and for the prevention of re-victimization.

With a larger sample, additional constructs could be considered in the model, including other personal variables such as non-sexual trauma. Further data is also needed to assess the longitudinal relations between the victims' immediate psychological responses and coping in order to understand more fully the recovery process and provide guidance for clinical intervention. Given the suggested relatively low levels of rape reporting to the police in South Africa (Jewkes & Abrahams, 2002), efforts should be focused on inclusion of women who do not report such cases.

The results presented in this study suggest an important avenue for clinical interventions with survivors of rape victimization. If protective factors can be identified and strengthened, the occurrence of violence and victimization may be prevented. Thus, it is crucial to consider coping processes in every domain of research on violence against women to fully understand the post-assault sequelae. Finally, these findings also challenge investigators to do more research on a wider range of outcome measures rather than exclusively focusing on measures of psychological distress. Further research in this area should be informed by ongoing debates. Informed approaches to intervention on victims of rape in South Africa rest upon developing a theoretical and empirical understanding of the context of violence, how the victims appraise these acts of violence and identifying the roles of internal and external factors in the recovery process. This information is essential to formulate responses to sexual violence that are appropriate in the healing and recovery process to rape victimization. I hope that this study will encourage further investigation in understanding reactions to rape victimization and recovery and stimulate interest in the study of the impact of rape across cultural boundaries. It is also hoped that this work will motivate readers to endeavour more actively to eliminate rape and other forms of sexual assault against women all around the

world at large. Although, the bulk of the research presented here reflects the South African context, particularly African female victims in three provinces of South Africa, we should not forget that sexual violence is common in many parts of the continent and across cultural groups. Whilst Blacks (African) account for a large part of the South African society, rape also affects women across all racial groups (Indian, Coloured and White).

The findings presented here have implications for the debate on the impact of rape victimization and the overall coping of victims of rape. Although the impact of rape victimization is widely recognized in general, its specific impact on various cultural groups has not yet been sufficiently established. The findings in this study concur with the contention that rape implants “land mines of horror” into the bodies of victims (Winkler & Winninger, 1994, p. 28). As the country proceeds with its restructuring and development programme, the urgent need for social and psychological services for women remains a particular concern. This is important given the relatively high prevalence of sexual victimization in women’s lives.

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APPENDIX A

APPENDIX A: Measurements

RAPE MYTH SCALE

On a scale of 1-5, Please indicate the extent to which you agree or disagree with the following statements. (1 = Strongly Disagree, 5 = Strongly Agree).

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. When a woman talk and act sexy, they are inviting rape.					
2. When a woman is raped, she usually did something careless to put herself in that situation.					
3. Any woman who teases a man sexually and doesn't finish what she started realistically deserves anything she gets.					
4. Many rapes happen because women lead men on.					
5. Men don't usually intend to force sex on a woman, but sometimes they get too sexually carried away.					
6. In some rape cases, the woman actually wanted it to happen.					
7. Even though the woman may call it rape, she probably enjoyed it.					
8. If a woman doesn't fight back, you can't really say that it was a rape.					
9. A rape probably didn't happen if the woman has no bruises or marks.					
10. When a woman allows petting to get to a certain point, she is implicitly agreeing to have sex.					
11. If a woman is raped, often it's because she didn't say "no" clearly enough.					
12. Women tend to exaggerate how much rape affects them.					
13. When men rape, it is because of their strong desire for sex.					
14. It is just part of human nature for men to take sex from women who let their guard down.					
15. A rapist is more likely to be Black or Coloured than White.					
16. In any rape case one would have to question whether the victim is promiscuous or has a bad reputation.					
17. Rape mainly occurs on the "bad" side of town.					
18. Many so-called rape victims are actually women who had sex and "changed their minds" afterwards.					
19. If a man pays all the bills, he has the right to sex with his partner whenever he wants.					

APPENDIX A
Intrapersonal Resources

On a scale of 1 = Strongly Disagree to 4 = Strongly Agree, please indicate the extent to which you agree with the following statements.

1.2.1.1.1.1

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. No matter how hard I try, my efforts will accomplish nothing. (Control)					
2. If someone gets angry with me, it's usually no fault of mine. (Control)					
3. Trying hard doesn't pay since things still don't turn out right. (Control)					
4. It's best to handle most problems by just not thinking of them. (Control)					
5. It's very hard for me to change a friend's mind about something. (Control)					
6. Daydreams are more exciting for me than reality. (Commitment)					
7. Getting close to people puts me at risk of being constrained to them. (Commitment)					
8. I really look forward to doing my daily routine. Commitment)					
9. I know why I am doing what I am doing in my life (work, school, home) Commitment)					
10. It bothers me when my daily routine gets interrupted. (Challenge)					
11. I feel uncomfortable if I have to make any changes in my everyday schedule or a schedule that I have set for myself. (Challenge)					
12. Encountering new situations is an important priority in my life. (Challenge)					
13. I really don't mind when I have nothing to do. (Challenge)					

APPENDIX A

COPING STRATEGY INDICATOR SCALE

On a scale of 1 = completely false to 5 = completely true, Please indicate the extent to which each of the following describe your behaviours, feelings and thoughts over the past month.

	Completely False	False	Neither True nor False	True	Completely True
1. I always check my door before opening.					
2. I do not need to have alcohol to live happily.					
3. My strongest feeling is that I'm glad to be alive.					
4. I keep all of the house doors locked.					
5. This was the worst experience I ever had.					
6. I walk with keys in hand so I won't fumble.					
7. I try to keep my mind on positive thoughts.					
8. I'm always certain to lock every possible opening wherever I am.					
9. I've tried specific ways to reduce stress.					
10. I keep myself very busy with different activities.					
11. I try keep myself occupied with work and school					
12. The best thing is to put rape behind you.					
13. I tried not to think about the rape.					
14. I dress very modestly.					
15. I can't imagine anything worse.					
16. I don't take public transportation at night.					
17. I only leave the house when I have to.					
18. I rarely leave my house anymore.					
19. I pretend I'm not home when someone knocks.					
20. Sometimes I don't answer the phone					

Withdraw = 19, 20; Stay Home = 8, 14,18; Keep busy = 10, 11; Precaution: Home = 1, 4, 6; Precaution Outside: 2, 8; Suppression: 7, 12, 13; Worst Experience = 5, 15; Thinking positive: 3, 7, 9;

APPENDIX A

IMPACT OF EVENT SCALE – REVISED

Instructions: The following are lists of difficulties people sometimes have experienced after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you during the past month. How much were you distressed or bothered by these difficulties?
0 = Not at All; 1 = A little bit; 2 = Moderately; 3 = Quite a bit; 4 = Extremely

	Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
1. Any reminder brings back feelings about the rape.					
2. I have trouble staying asleep.					
3. Other things keep making me think about it.					
4. I feel irritable and angry.					
5. I avoid letting myself get upset when I think about it or was reminded of it.					
6. I think about it when I don't mean to.					
7. I feel as if it hasn't happened or isn't real.					
8. I stay away from reminders about it.					
9. Pictures about it pop into my mind.					
10. I am jumpy and easily startled.					
11. I try not to think about it.					
12. I am aware that I still have a lot of feelings about it, but I don't deal with them.					
13. My feelings about it are kind of numb.					
14. I find myself acting or feeling like I am back at that time.					
15. I have trouble falling asleep.					
16. I have waves of strong feelings about it.					
17. I try to remove it from my memory.					
18. I have trouble concentrating.					
19. Reminders of it cause me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.					
20. I have dreams about it.					
21. I feel watchful and on guard.					
22. I try not to talk about it.					

APPENDIX A

ATTRIBUTION STYLES

On a scale of 1 (not at all) to 5 (completely blame) please indicate the extent to which you blame your rape victimization on the following factors.

	Not at All 1	Rarely Blame 2	Sometimes Blame 3	Blame it All the time 4	Completely Blame 5
1. I am too trusting					
2. I made a rash decision					
3. I should have been more cautious.					
4. I am a poor judge of character.					
5. I am too impulsive					
6. There are never people around when you need them.					
7. There is too much pornography.					
8. People are too scared to get involved.					
9. Men have too little respect for women.					
10. There are never policemen around when you need them.					
11. There is too much violence on T.V.					
12. I invited the situation upon myself.					
13. I can't take care of myself.					
14. I am a victim type.					
15. I have bad luck.					

Appendix A-1

Demographic Data

A. Personal Details:

Title: Ms. Miss Mrs Other

Area of Residence……

Age: ……

Marital Status:

Married	
Single	
Divorced	
Widowed	
Separated	
Cohabiting/Live-in partner	

Highest Education

University Degree	
Post-graduate Diploma	
Matric	
Other	

Parental Status:

No Children	
1-2 children	
3 or more	

Employment Status:

Working Full-Time	
Working Part-Time	
Student	
Unemployed	
Other	

Monthly Personal Income:

R500- R999	
R1000- R2999	
R3000 – R5999	
R6 000 – R8 999	
R9 000 +	

B. Life-Time Sexual Assault History

1. Have you ever been pressured or forced to have sexual contact you did not want to prior to the recent incident of rape?

Yes No

C. Most Recent Assault

Relationship to Offender:

An acquaintance	
Known by sight only	
Completely Unknown	

D. Level of Severity

Did the offender use physical force?	Yes	No

If Yes, please indicate

Twisted arm	Hit and Slapped	Other……. …….. (explain)

Did the offender use a weapon?

Knife	Gun	Other…….(explain)

E.

How would you explain the reasons as to why you think you were raped?

F. What would be the most things that you are concerned about now following from the rape? Please explain (Probe on about AIDS).

APPENDIX B

Appendix B - Correlations

Pearson Correlations

Correlates of Intrusion, Avoidance and Hyperarousal

	Intrusion	Avoidance	Hyperarousal
Intrusion	-	.57**	.73**
Avoidance	.57**	-	.64**
Hyperarousal	.73**	.64**	-
N	249	249	249

**. Correlation is a significant at the 0.01 level (2-tailed)

Pearson Correlations Amongst Coping Strategies

	Precaution: Home	Precaution: Outside	Stay Home	Keep Busy	Think Positive	Suppression	Worst Experience	Withdraw
Precaution: Home	-	.34**	.28**	.25**	.23**	.16*	.31**	.25**
Precaution: Outside	.34**	-	.41**	.41**	.38**	.36**	.28**	.092
Stay Home	.28**	.41**	-	.080	.056	.163*	.299**	.37**
Keep Busy	.25**	.27**	.080	-	.57**	.38**	.23**	-.087
Think Positive	.23**	.38**	.056	.57**	-	.53**	.38**	-.067
Suppression	.16	.36**	.16*	.38**	.53**	-	.36**	-.086
Worst Experience	.31**	.28**	.29**	.23**	.38**	.36**	-	.027
Withdraw	.25**	.092	.37**	-.087	-.067	-.086	.027	-

Correlations

Inter-correlations among the Measurements

	Behavioural	Characterological	External	Rape Myth	Commitment	Control	Challenge
Behavioral	-	.34**	.23**	-.07	.16**	-.10	-.07
Characterological	.34**	-	.04	.08	.09	-.12	-.08
External	.23**	.04	-	-.28**	.21**	.07	-.11
Rape Myth	-.07	.08	-.28**	-	-.08	.24**	-.12
Commitment	.16**	.09	.21**	-.08	-	-.10	-.05
Control	-.10	-.12	.07	-.24**	-.10	-	.12*
Challenge	-.07	-08	-.11	-.12	-.05	.12*	-
Precaution Home	.15*	.07	.08	-.10	.27**	-.11	-.04
Precaution Outside	.11	.11	.05	-.05	.09	-.09	.03

Stay Home	.13*	.14*	-.04	.05	.11	-.20**	-.09
Keep Busy	.15*	-.01	.13*	-.12	.14*	.06	.06
Think Positive	.16*	.06	.23**	-.28**	.25**	.09	.10
Suppression	.03	-.05	.09	-.08	.16*	-.12	.06
Worst Experience	.16*	.00	.12	-.16*	.28**	-.01	-.01
Withdraw	.10	.17**	.04	.04	.08	-.17**	-.13
Intrusion	.17**	-.03	.22**	-.05	.16*	-.22**	-.12
Avoidance	.23**	.06	.18**	-.07	.12	-.17**	.06
Hyperarousal	.24**	.14*	.16**	-.11	.21**	-.16*	-.06

** Correlation is significant at the 0.01 level (2-tailed).

- Correlation is significant at the 0.05 level (2-tailed).
-

Appendix B-1 Corrected Item- Total Correlation for Attribution Styles

Appendix B-1.1.1 Corrected Item-Total Correlation for Behavioral Attribution

Items	Corrected Item-Total Correlation
1. I am too trusting	.473
2. I made a rash decision	.509
3. I should have been more cautious.	.489
4. I am a poor judge of character.	.556
5. I am too impulsive	.558
Cronbach's Alpha	**.75**

Appendix B-1.1.2 Corrected Item-Total Correlation for External Attribution

6. There are never people around when you need them.	.328
7. There is too much pornography.	.627
8. People are too scared to get involved.	.471
9. Men have too little respect for women.	.542
10. There are never policemen around when you need them.	.445
11. There is too much violence on T.V.	.559
Cronbach's Alpha	**.75**

Appendix B-1.3 Corrected Item-Total Correlation for Characterological Attribution

12. I invited the situation upon myself.	.422
13. I can't take care of myself.	.413
14. I am a victim type.	.586
15. I have bad luck.	.241
Cronbach's Alpha	**.62**

B-1.1.4

Corrected Item-Total Correlation for Hardiness

Control	Item-Total
1. No matter how hard I try, my efforts will accomplish nothing.	.50
2. If someone gets angry with me, it's usually no fault of mine.	.31
3. Trying hard doesn't pay since things still don't turn out right.	.54
4. It's best to handle most problems by just not thinking of them.	.39
5. It's very hard for me to change a friend's mind about something.	.24
Commitment	
6. Daydreams are more exciting for me than reality. (Commitment)	.017
7. Getting close to people puts me at risk of being constrained to them. (Commitment)	.248
8. I really look forward to doing my daily routine. Commitment)	.406
9. I know why I am doing what I am doing in my life (work, school, home) Commitment**)**	.389
Challenge	
10. It bothers me when my daily routine gets interrupted.	.61
11. I feel uncomfortable if I have to make any changes in my everyday schedule or a schedule that I have set for myself.	.51
12. Encountering new situations is an important priority in my life.	.38
13. I really don't mind when I have nothing to do.	.189

Corrected Item-Total Correlation for Hardiness and Cronbach's alpha if item Deleted:

Commitment	Corrected Item-Total Correlation	Cronbach's alpha if item Deleted
8. I really look forward to doing my daily routine.	.64	.73
9. I know why I am doing what I am doing in my life (work, school, home)	.64	.72
10. It bothers me when my daily routine gets interrupted.	.63	.72
11. I feel uncomfortable if I have to make any changes in my everyday schedule or a schedule that I have set for myself.	.51	.76
12. Encountering new situations is an important priority in my life.	.56	.75
13. I really don't mind when I have nothing to do.*	.25	.82
Control		
1. No matter how hard I try, my efforts will accomplish nothing.	.54	.51
2. If someone gets angry with me, it's usually no fault of mine.	.32	.65
3. Trying hard doesn't pay since things still don't turn out right.	.52	.52
4. It's best to handle most problems by just not thinking of them.	.36	.63
Challenge?		
5. It's very hard for me to change a friend's mind about something.	.39	.151
6. Daydreams are more exciting for me than reality.	.20	.49
7. Getting close to people puts me at risk of being constrained to them.	.25	.41

* Item reversed

B-1.1.5 Corrected Item-Total Correlation for Rape Myth

1. When a woman talk and act sexy, they are inviting rape.	.90
2. When a woman is raped, she usually did something careless to put herself in that situation.	.89
3. Any woman who teases a man sexually and doesn't finish what she started realistically deserves anything she gets.	.90
4. Many rapes happen because women lead men on.	.89
5. Men don't usually intend to force sex on a woman, but sometimes they get too sexually carried away.	.90
6. In some rape cases, the woman actually wanted it to happen.	.89
7. Even though the woman may call it rape, she probably enjoyed it.	.90
8. If a woman doesn't fight back, you can't really say that it was a rape.	.89
9. A rape probably didn't happen if the woman has no bruises or marks.	.90
10. When a woman allows petting to get to a certain point, she is implicitly agreeing to have sex.	.89
11. If a woman is raped, often it's because she didn't say "no" clearly enough.	.90
12. Women tend to exaggerate how much rape affects them.	.89
13. When men rape, it is because of their strong desire for sex.	.90
14. It is just part of human nature for men to take sex from women who let their guard down.	.89
15. A rapist is more likely to be Black or Coloured than White.	.89
16. In any rape case one would have to question whether the victim is promiscuous or has a bad reputation.	.90
17. Rape mainly occurs on the "bad" side of town.	.90
18. Many so-called rape victims are actually women who had sex and "changed their minds" afterwards.	.90
19. If a man pays all the bills, he has the right to sex with his partner whenever he wants.	.90

B-1.1.6 Corrected Item-Total Correlation for Psychological Impact

Intrusion	Corrected Item- Total Correlation
1. Any reminder brings back feelings about the rape.	.456
2. I have trouble staying asleep.	.611
3. Other things keep making me think about it.	.599
6. I think about it when I don't mean to.	.487
9. Pictures about it pop into my mind.	.515
16. I have waves of strong feelings about it.	.478
20.I have dreams about it.	.516
Cronbach's alpha	.794

Avoidance	
5. I avoid letting myself get upset when I think about it or was reminded of it.	.431
7. I feel as if it hasn't happened or isn't real.	.287
8. I stay away from reminders about it.	.449
11. I try not to think about it.	.473
12. I am aware that I still have a lot of feelings about it, but I don't deal with them.	.552
13. My feelings about it are kind of numb.	.300
17. I try to remove it from my memory.	.530
22. I try not to talk about it.	.403
. Cronbach's alpha	.73

Hyperarousal	.360
4. I feel irritable and angry.	.429
10. I am jumpy and easily startled	.420
14. I find myself acting or feeling like I am back at that time.	.528
15. I have trouble falling asleep.	.499
18. I have trouble concentrating.	.454
19. Reminders of it cause me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	.394
21. I feel watchful and on guard.	
Cronbach's alpha	.73

APPENDIX B-2 CONFIRMATORY ANALYSES:

B- 2.1 Attribution Styles

COMPLETELY STANDARDIZED SOLUTIION

	Behavioral	External	Characterological
1. I am too trusting	**.512**		
2. I made a rash decision	**.557**		
3. I should have been more cautious.	**.678**		
4. I am a poor judge of character.	**.698**		
5. I am too impulsive	**.726**		
6. There are never people around when you need them.		**.337**	
7. There is too much pornography.		**.794**	
8. People are too scared to get involved.		**.500**	
9. Men have too little respect for women.		**.614**	
10. There are never policemen around when you need them.		**.432**	
11. There is too much violence on T.V.			**.610**
12. I invited the situation upon myself.			**-.015**
13. I can't take care of myself.			**.103**
14. I am a victim type.			**.115**
15. I have bad luck.			**.225**

B- 2.1.1 Attribution Styles - Exploratory

Rotated Factor Matrix

Factors

	1	**2**	**3**	**4**
1. I am too trusting	**.60**			
2. I made a rash decision	**.60**			
3. I should have been more cautious.	**.54**			
4. I am a poor judge of character.	**.60**			
5. I am too impulsive	**.60**			
6. There are never people around when you need them.		**.**		**.39**
7. There is too much pornography.		**.72**		
8. People are too scared to get involved.		**.46**		
9. Men have too little respect for women.		**.72**		
10. There are never policemen around when you need them.		**.45**		
11. There is too much violence on T.V.		**.72**		
12. I invited the situation upon myself.			**.60**	
13. I can't take care of myself.			**.64**	
14. I am a victim type.			**.67**	
15. I have bad luck.				**.60**

B-2 .2 Intrapersonal Resource: Hardiness

	Control	Commitment	Challenge
1. No matter how hard I try, my efforts will accomplish nothing.	**.687**		
2. If someone gets angry with me, it's usually no fault of mine.	**.342**		
3. Trying hard doesn't pay since things still don't turn out right.	**.796**		
4. It's best to handle most problems by just not thinking of them.	**.447**		
5. It's very hard for me to change a friend's mind about something.	**.284**		
6. Daydreams are more exciting for me than reality.		**.013**	
7. Getting close to people puts me at risk of being constrained to them.		**.304**	
8. I really look forward to doing my daily routine.		**-.279**	
9. I know why I am doing what I am doing in my life (work, school, home)		**-.804**	
10. It bothers me when my daily routine gets interrupted.			**.786**
11. I feel uncomfortable if I have to make any changes in my everyday schedule or a schedule that I have set for myself.			**.695**
12. Encountering new situations is an important priority in my life.			**.571**
13. I really don't mind when I have nothing to do.			**-.314**

B-2 .2.1 Intrapersonal Resource: Hardiness (Exploratory)

Items **Factors**

	1	2	3
1. No matter how hard I try, my efforts will accomplish nothing.	**.70**		
2. If someone gets angry with me, it's usually no fault of mine.	**.37**		
3. Trying hard doesn't pay since things still don't turn out right.	**.75**		
4. It's best to handle most problems by just not thinking of them.	**.43**		
5. It's very hard for me to change a friend's mind about something.			**.72**
6. Daydreams are more exciting for me than reality.			**.34**
7. Getting close to people puts me at risk of being constrained to them.			**.43**
8. I really look forward to doing my daily routine.		**.72**	
9. I know why I am doing what I am doing in my life (work, school, home)		**.73**	
10. It bothers me when my daily routine gets interrupted. (Challenge)		**.71**	
11. I feel uncomfortable if I have to make any changes in my everyday schedule or a schedule that I have set for myself.		**.58**	
12. Encountering new situations is an important priority in my life. (Challenge)		**.65**	
13. I really don't mind when I have nothing to do.		**-.32**	

B-2 .3 Rape Myth Scale (Exploratory)

	Factor 1 Victim-Blame	**Factor 2 Victim Desire-Enjoyment**	**Factor 3 False Charge**	**Factor 4 Trivialization of Crime**
1. When a woman talk and act sexy, they are inviting rape.	***.76***			
2. When a woman is raped, she usually did something careless to put herself in that situation.	***.58***			
3. Any woman who teases a man sexually and doesn't finish what she started realistically deserves anything she gets.	***.66***			
4. Many rapes happen because women lead men on.	***.68***			
19. If a man pays all the bills, he has the right to sex with his partner whenever he wants	***.38***			
5. Men don't usually intend to force sex on a woman, but sometimes they get too sexually carried away.		***.30***		
6. In some rape cases, the woman actually wanted it to happen.		***.57***		
7. Even though the woman may call it rape, she probably enjoyed it.		***.54***		
10. When a woman allows petting to get to a certain point, she is implicitly		***.39***		

agreeing to have sex.				
11. If a woman is raped, often it's because she didn't say "no" clearly enough.		***.48***		
14. It is just part of human nature for men to take sex from women who let their guard down.		***.45***		
15. A rapist is more likely to be Black or Coloured than White.		***.51***		
16. In any rape case one would have to question whether the victim is promiscuous or has a bad reputation.		***.60***		
18. Many so-called rape victims are actually women who had sex and "changed their minds" afterwards.		***.55***		
8. If a woman doesn't fight back, you can't really say that it was a rape.			***.59***	
9. A rape probably didn't happen if the woman has no bruises or marks.			***.75***	
12. Women tend to exaggerate how much rape affects them.				***.41***
13. When men rape, it is because of their strong desire for sex.				***.54***
17. Rape mainly occurs on the "bad" side of town				***.47***

B-2 .4 Impact of Event (Exploratory)

Items **Factors**

	1	**2**	**3**	**4**
1. Any reminder brings back feelings about the rape.		*.47*		
2. I have trouble staying asleep.		*.75*		
3. Other things keep making me think about it.		*.63*		
4. I feel irritable and angry.		*.53*		
5. I avoid letting myself get upset when I think about it or was reminded of it.			*.48*	
6. I think about it when I don't mean to.		*.46*		
7. I feel as if it hasn't happened or isn't real.				*.37*
8. I stay away from reminders about it.				*.40*
9. Pictures about it pop into my mind.		*.36*		
10. I am jumpy and easily startled.			*.39*	
11. I try not to think about it.				*.60*
12. I am aware that I still have a lot of feelings about it, but I don't deal with them.				*.34*
13. My feelings about it are kind of numb.			*.51*	
14. I find myself acting or feeling like I am back at that time.			*.45*	
15. I have trouble falling asleep.	***.54***			
16. I have waves of strong feelings about it.	***.45***			
17. I try to remove it from my memory.				*.46*

18. I have trouble concentrating.	***.57***			
19. Reminders of it cause me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	***.44***			
20. I have dreams about it.	***.62***			
21. I feel watchful and on guard.	***.63***			
22. I try not to talk about it.	***.55***			

B-2 .5 Coping (Exploratory)

Items Factor

	1	**2**	**3**	**4**	**5**	**6**	**7**
1. I always check my door before opening.		*.74*					
2. I do not need to have alcohol to live happily.						*.35*	
3. My strongest feeling is that I'm glad to be alive.					.64		
4. I keep all of the house doors locked.		*.64*					
5. This was the worst experience I ever had.					*.45*		
6. I walk with keys in hand so I won't fumble.		*.50*					
7. I try to keep my mind on positive thoughts.					*.57*		
8. I'm always certain to lock every possible opening wherever I am.		*.27*					
9. I've tried specific ways to reduce stress.				*.64*			
10. I keep myself very busy with different activities.				*.66*			

11. I try keep myself occupied with work and school				*.61*			
12. The best thing is to put rape behind you.	*.55*						
13. I tried not to think about the rape.	*.52*						
14. I dress very modestly.						*.49*	
15. I can't imagine anything worse.							*.57*
16. I don't take public transportation at night.	*.43*						
17. I only leave the house when I have to.	*.70*						
18. I rarely leave my house anymore.			*.62*				
19. I pretend I'm not home when someone knocks.			*.65*				
20. Sometimes I don't answer the phone			*.58*				

Withdraw = 19, 20; Stay Home = 8, 14,18; Keep busy = 10, 11; Precaution: Home = 1, 4, 6; Precaution Outside: 2, 8; Suppression: 7, 12, 13; Worst Experience = 5, 15; Thinking positive: 3, 7, 9;

APPENDIX B-3 CANONINCAL COEFFICIENTS:

Coping

	Raw Canonical Coefficient	**Standardized**
Approach Coping	-.99	-.76
Avoidance Coping	-.52	-.46

Psychological Impact

	Raw Canonical Coefficient	Standardized
Intrusion	.28	.03
Avoidance	-.37	-.26
Hyperarousal	-1.05	-.82

Attribution

	Raw Canonical Coefficient	Standardized
External	.19	.20
Behavioral	.67	.60
Characterological	.57	.57

Personality

	Raw Canonical Coefficient	Standardized
Commitment	-1.30	-.97
Control	-.38	-.32

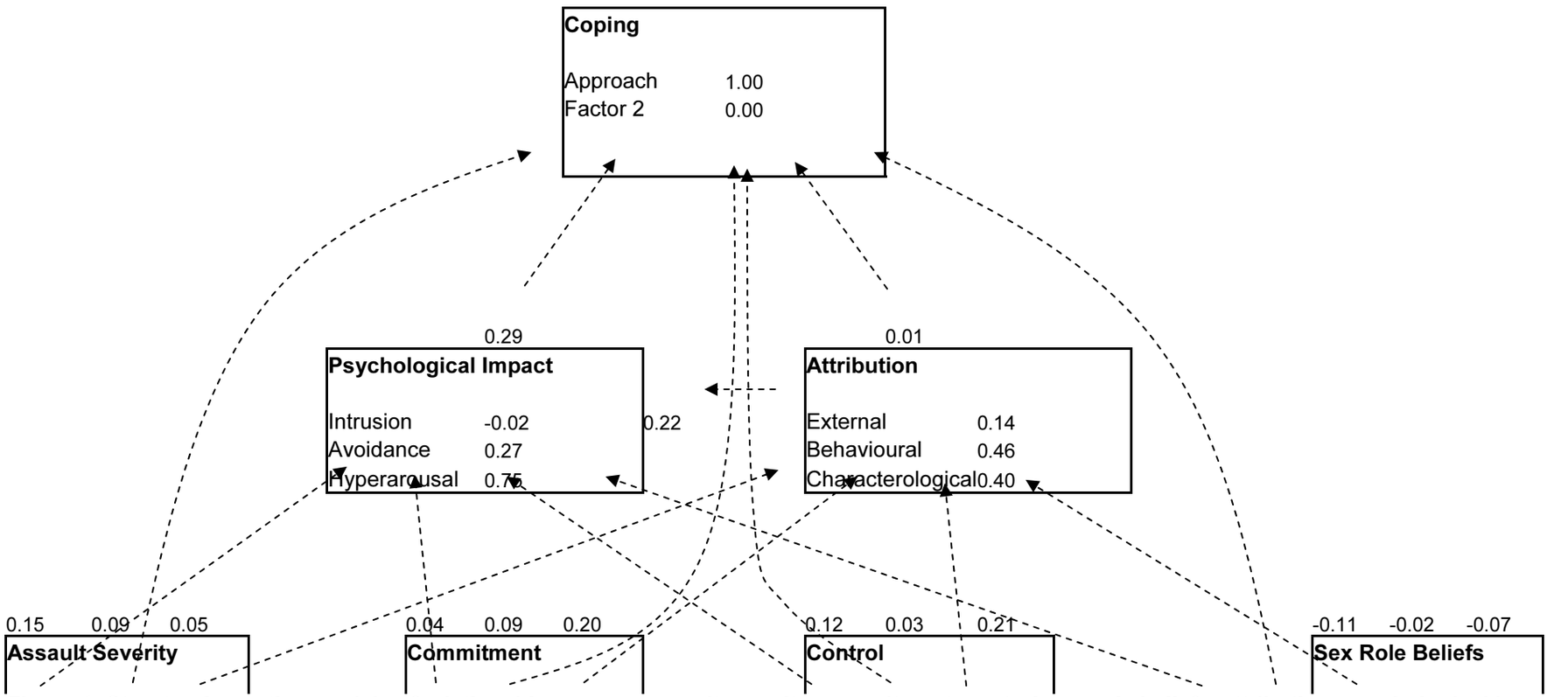

Figure 4: Structural equation models of relationships among assault severity, commitment, control, sex role beliefs, attribution, psychological impact and Approach coping style.

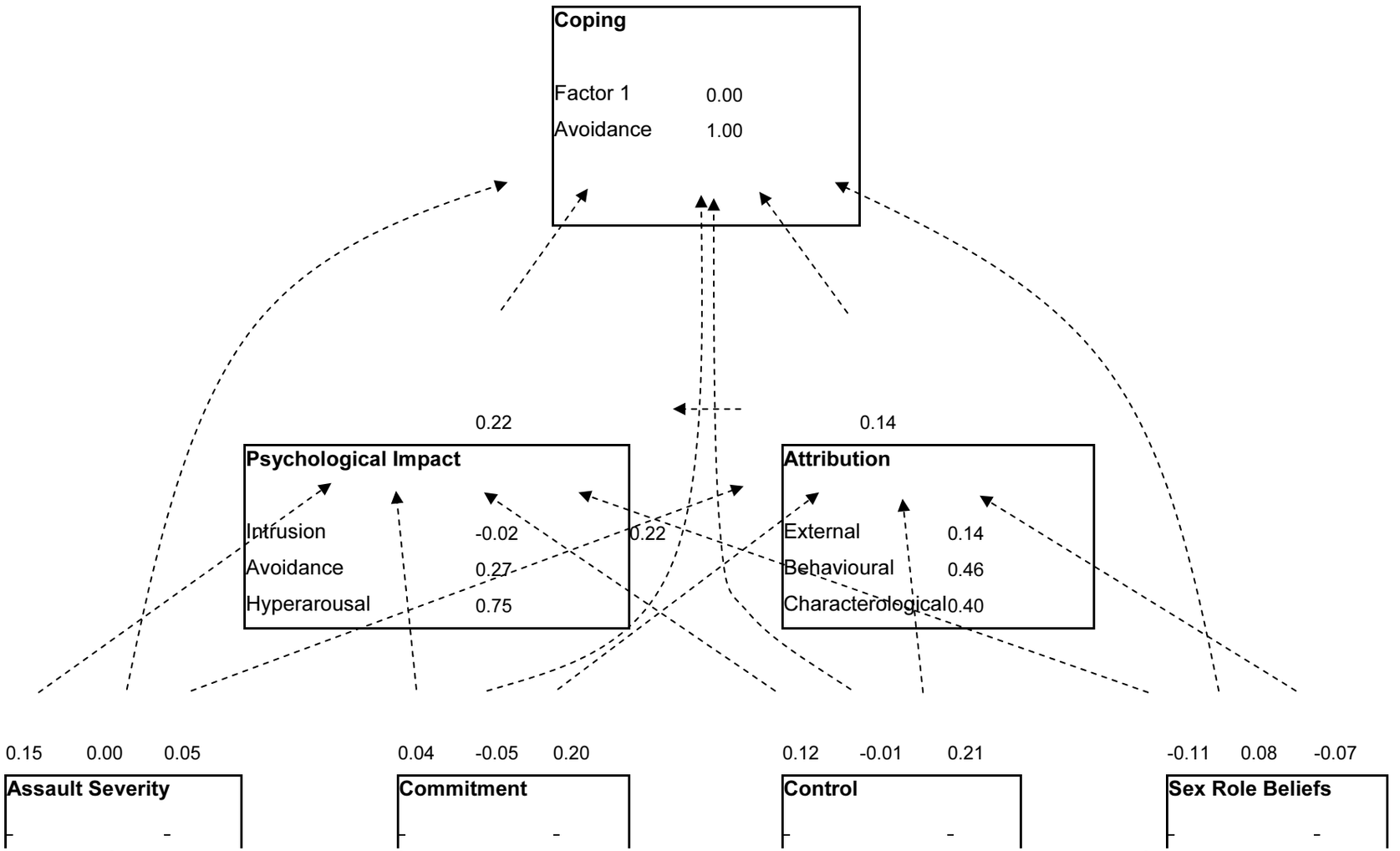

Figure 5: Structural equation models of relationships among assault severity, commitment, control, sex role beliefs, attribution, psychological impact and Avoidance coping style.

APPENDIX C

Appendix C: Final Model Output

L I S R E L 8.54

BY

Karl G. J”reskog & Dag S”rbom


```
 TI Model2.2
 !DA NI=8 NO=249 NG=1 MA=CM
 SY='C:\Documents and Settings\johannesd\My Documents\NaLaptop\Jobs\N
Mgoqi\CLEANDATA2.dsf' NG=1
 SE
 1 2 3 4 5 6 7 8 /
 MO NX=4 NY=4 NK=4 NE=3 LY=FU,FI LX=FU,FI BE=FU,FI GA=FU,FI
PH=SY,FR PS=SY,FI TE=SY,FI TD=SY,FI
 LE
 Eta1 Eta2 Eta3
 LK
 Ksi1 Ksi2 Ksi3 Ksi4
 VA 1 LY 1 1 LY 3 2 LY 4 3
 FR LY 2 1
 FI TE 3 3 TE 4 4
 FR TE 1 1 TE 2 2
 VA 0 TE 3 3 TE 4 4
 VA 1 LX 1 1 LX 2 2 LX 3 3 LX 4 4
 FI TD 1 1 TD 2 2 TD 3 3 TD 4 4
 VA 0 TD 1 1 TD 2 2 TD 3 3 TD 4 4
 !FR TD 2 2 TD 3 3 TD 4 4
 FR PS 1 1 PS 2 2 PS 3 3
 FR BE 1 2 BE 1 3
 FR BE 2 3
 FR GA 1 1 GA 1 2 GA 1 3 GA 1 4
 FR GA 2 1 GA 2 2 GA 2 3 GA 2 4
 FR GA 3 1 GA 3 2 GA 3 3 GA 3 4
 !FR GA 4 1 GA 4 2 GA 4 3
 !PD
```

OU EF FS SS MI SC MR ND=3 GF=Model2.2.gfs TV=Model2.2.tvs

TI Model2.2

Number of Input Variables 8
Number of Y - Variables 4
Number of X - Variables 4
Number of ETA - Variables 3
Number of KSI - Variables 4
Number of Observations 249

TI Model2.2

Covariance Matrix

	CS1_2	CS1_3	PI	ATT	AS	IS1_1
CS1_2	0.589					
CS1_3	0.196	0.796				
PI	0.176	0.157	0.510			
ATT	0.059	0.114	0.128	0.481		
AS	0.137	0.044	0.157	0.039	1.867	
IS1_1	0.071	-0.009	0.049	0.104	-0.013	0.560
IS1_2	0.030	0.049	0.074	0.102	-0.037	-0.051
RM	-0.032	0.029	-0.047	-0.027	-0.021	-0.086

Covariance Matrix

	IS1_2	RM
IS1_2	0.670	
RM	0.101	0.336

TI Model2.2

Parameter Specifications

LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	0	0	0
CS1_3	1	0	0
PI	0	0	0
ATT	0	0	0

BETA

	Eta1	Eta2	Eta3

Eta1	0	2	3
Eta2	0	0	4
Eta3	0	0	0

GAMMA

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	5	6	7	8
Eta2	9	10	11	12
Eta3	13	14	15	16

PHI

	Ksi1	Ksi2	Ksi3	Ksi4
Ksi1	17			
Ksi2	18	19		
Ksi3	20	21	22	
Ksi4	23	24	25	26

PSI

Eta1	Eta2	Eta3
27	28	29

THETA-EPS

CS1_2	CS1_3	PI	ATT
30	31	0	0

TI Model2.2

Number of Iterations = 7

LISREL Estimates (Maximum Likelihood)

LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	1.000	- -	- -
CS1_3	0.902	- -	- -
	(0.237)		

3.798

PI - - 1.000 - -

ATT - - - - 1.000

LAMBDA-X

	Ksi1	Ksi2	Ksi3	Ksi4
AS	1.000	- -	- -	- -
IS1_1	- -	1.000	- -	- -
IS1_2	- -	- -	1.000	- -
RM	- -	- -	- -	1.000

BETA

	Eta1	Eta2	Eta3
Eta1	- -	0.312	0.073
		(0.066)	(0.062)
		4.756	1.176
Eta2	- -	- -	0.222
			(0.064)
			3.441
Eta3	- -	- -	- -

GAMMA

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.031	0.044	0.012	0.025
	(0.030)	(0.056)	(0.052)	(0.073)
	1.035	0.777	0.225	0.347
Eta2	0.080	0.037	0.105	-0.137
	(0.031)	(0.060)	(0.055)	(0.077)
	2.556	0.627	1.919	-1.785
Eta3	0.025	0.189	0.181	-0.086
	(0.031)	(0.057)	(0.053)	(0.076)
	0.797	3.287	3.436	-1.140

Covariance Matrix of ETA and KSI

	Eta1	Eta2	Eta3	Ksi1	Ksi2	Ksi3
Eta1	0.217					
Eta2	0.175	0.510				
Eta3	0.081	0.128	0.481			
Ksi1	0.108	0.157	0.039	1.867		
Ksi2	0.044	0.049	0.104	-0.013	0.560	
Ksi3	0.038	0.074	0.102	-0.037	-0.051	0.670
Ksi4	-0.011	-0.047	-0.027	-0.021	-0.086	0.101

Covariance Matrix of ETA and KSI

	Ksi4
Ksi4	0.336

PHI

	Ksi1	Ksi2	Ksi3	Ksi4
Ksi1	1.867			
	(0.168)			
	11.136			
Ksi2	-0.013	0.560		
	(0.065)	(0.050)		
	-0.199	11.136		
Ksi3	-0.037	-0.051	0.670	
	(0.071)	(0.039)	(0.060)	
	-0.519	-1.316	11.136	
Ksi4	-0.021	-0.086	0.101	0.336
	(0.050)	(0.028)	(0.031)	(0.030)
	-0.409	-3.075	3.284	11.136

PSI

Note: This matrix is diagonal.

Eta1	Eta2	Eta3
0.151	0.453	0.439
(0.060)	(0.041)	(0.039)
2.516	11.136	11.136

Squared Multiple Correlations for Structural Equations

Eta1	Eta2	Eta3
0.304	0.112	0.086

Squared Multiple Correlations for Reduced Form

Eta1	Eta2	Eta3
0.060	0.069	0.086

Reduced Form

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.060	0.082	0.070	-0.030
	(0.032)	(0.059)	(0.054)	(0.077)
	1.874	1.399	1.303	-0.387
Eta2	0.086	0.079	0.145	-0.157
	(0.032)	(0.060)	(0.055)	(0.079)
	2.670	1.327	2.652	-1.991
Eta3	0.025	0.189	0.181	-0.086
	(0.031)	(0.057)	(0.053)	(0.076)
	0.797	3.287	3.436	-1.140

THETA-EPS

CS1_2	CS1_3	PI	ATT
0.372	0.620	- -	- -
(0.067)	(0.073)		
5.531	8.470		

Squared Multiple Correlations for Y - Variables

CS1_2	CS1_3	PI	ATT
0.368	0.222	1.000	1.000

Squared Multiple Correlations for X - Variables

AS	IS1_1	IS1_2	RM
1.000	1.000	1.000	1.000

Goodness of Fit Statistics

Degrees of Freedom = 5
Minimum Fit Function Chi-Square = 9.146 (P = 0.103)
Normal Theory Weighted Least Squares Chi-Square = 8.979 (P = 0.110)
Estimated Non-centrality Parameter (NCP) = 3.979
90 Percent Confidence Interval for NCP = (0.0 ; 16.496)

Minimum Fit Function Value = 0.0369
Population Discrepancy Function Value (F0) = 0.0160
90 Percent Confidence Interval for F0 = (0.0 ; 0.0665)
Root Mean Square Error of Approximation (RMSEA) = 0.0566
90 Percent Confidence Interval for RMSEA = (0.0 ; 0.115)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.359

Expected Cross-Validation Index (ECVI) = 0.286
90 Percent Confidence Interval for ECVI = (0.270 ; 0.337)
ECVI for Saturated Model = 0.290
ECVI for Independence Model = 0.707

Chi-Square for Independence Model with 28 Degrees of Freedom = 159.414
Independence AIC = 175.414
Model AIC = 70.979
Saturated AIC = 72.000
Independence CAIC = 211.554
Model CAIC = 211.020
Saturated CAIC = 234.628

Normed Fit Index (NFI) = 0.943
Non-Normed Fit Index (NNFI) = 0.823
Parsimony Normed Fit Index (PNFI) = 0.168
Comparative Fit Index (CFI) = 0.968
Incremental Fit Index (IFI) = 0.973
Relative Fit Index (RFI) = 0.679

Critical N (CN) = 410.151

Root Mean Square Residual (RMR) = 0.0177
Standardized RMR = 0.0263
Goodness of Fit Index (GFI) = 0.991
Adjusted Goodness of Fit Index (AGFI) = 0.935
Parsimony Goodness of Fit Index (PGFI) = 0.138

TI Model2.2

Modification Indices and Expected Change

Modification Indices for LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	- -	0.017	2.633
CS1_3	- -	0.017	2.633
PI	- -	- -	- -
ATT	- -	- -	- -

Expected Change for LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	- -	0.042	-0.178
CS1_3	- -	-0.038	0.161
PI	- -	- -	- -
ATT	- -	- -	- -

Standardized Expected Change for LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	- -	0.030	-0.123
CS1_3	- -	-0.027	0.111
PI	- -	- -	- -
ATT	- -	- -	- -

Completely Standardized Expected Change for LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	- -	0.039	-0.161
CS1_3	- -	-0.030	0.125
PI	- -	- -	- -
ATT	- -	- -	- -

No Non-Zero Modification Indices for LAMBDA-X

No Non-Zero Modification Indices for BETA

No Non-Zero Modification Indices for GAMMA

No Non-Zero Modification Indices for PHI

No Non-Zero Modification Indices for PSI

Modification Indices for THETA-EPS

	CS1_2	CS1_3	PI	ATT

CS1_2	- -			
CS1_3	- -	- -		
PI	0.000	0.000	- -	
ATT	3.675	3.676	- -	- -

Expected Change for THETA-EPS

	CS1_2	CS1_3	PI	ATT
CS1_2	- -			
CS1_3	- -	- -		
PI	0.002	-0.001	- -	
ATT	-0.085	0.077	- -	- -

Completely Standardized Expected Change for THETA-EPS

	CS1_2	CS1_3	PI	ATT
CS1_2	- -			
CS1_3	- -	- -		
PI	0.003	-0.002	- -	
ATT	-0.161	0.125	- -	- -

Modification Indices for THETA-DELTA-EPS

	CS1_2	CS1_3	PI	ATT
AS	1.056	1.056	- -	- -
IS1_1	2.886	2.886	- -	- -
IS1_2	0.158	0.158	- -	- -
RM	2.010	2.010	- -	- -

Expected Change for THETA-DELTA-EPS

	CS1_2	CS1_3	PI	ATT
AS	0.095	-0.085	- -	- -
IS1_1	0.083	-0.075	- -	- -
IS1_2	0.021	-0.019	- -	- -
RM	-0.053	0.048	- -	- -

Completely Standardized Expected Change for THETA-DELTA-EPS

	CS1_2	CS1_3	PI	ATT
AS	0.090	-0.070	- -	- -
IS1_1	0.144	-0.112	- -	- -
IS1_2	0.033	-0.026	- -	- -
RM	-0.119	0.092	- -	- -

Maximum Modification Index is 3.68 for Element (4, 2) of THETA-EPS

TI Model2.2

Covariances

Y - ETA

	CS1_2	CS1_3	PI	ATT
Eta1	0.217	0.196	0.175	0.081
Eta2	0.175	0.158	0.510	0.128
Eta3	0.081	0.073	0.128	0.481

Y - KSI

	CS1_2	CS1_3	PI	ATT
Ksi1	0.108	0.097	0.157	0.039
Ksi2	0.044	0.040	0.049	0.104
Ksi3	0.038	0.034	0.074	0.102
Ksi4	-0.011	-0.010	-0.047	-0.027

X - ETA

	AS	IS1_1	IS1_2	RM
Eta1	0.108	0.044	0.038	-0.011
Eta2	0.157	0.049	0.074	-0.047
Eta3	0.039	0.104	0.102	-0.027

X - KSI

	AS	IS1_1	IS1_2	RM
Ksi1	1.867	-0.013	-0.037	-0.021
Ksi2	-0.013	0.560	-0.051	-0.086
Ksi3	-0.037	-0.051	0.670	0.101
Ksi4	-0.021	-0.086	0.101	0.336

TI Model2.2

Factor Scores Regressions

ETA

	CS1_2	CS1_3	PI	ATT	AS	IS1_1
Eta1	0.253	0.137	0.194	0.046	0.019	0.027
Eta2	0.000	0.000	1.000	0.000	0.000	0.000

Eta3	0.000	0.000	0.000	1.000	0.000	0.000

ETA

	IS1_2	RM
Eta1	0.007	0.016
Eta2	0.000	0.000
Eta3	0.000	0.000

KSI

	CS1_2	CS1_3	PI	ATT	AS	IS1_1
Ksi1	0.000	0.000	0.000	0.000	1.000	0.000
Ksi2	0.000	0.000	0.000	0.000	0.000	1.000
Ksi3	0.000	0.000	0.000	0.000	0.000	0.000
Ksi4	0.000	0.000	- -	0.000	0.000	0.000

KSI

	IS1_2	RM
Ksi1	0.000	0.000
Ksi2	0.000	- -
Ksi3	1.000	0.000
Ksi4	- -	1.000

TI Model2.2

Standardized Solution

LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	0.466	- -	- -
CS1_3	0.420	- -	- -
PI	- -	0.714	- -
ATT	- -	- -	0.693

LAMBDA-X

	Ksi1	Ksi2	Ksi3	Ksi4
AS	1.366	- -	- -	- -
IS1_1	- -	0.748	- -	- -
IS1_2	- -	- -	0.818	- -
RM	- -	- -	- -	0.580

BETA

	Eta1	Eta2	Eta3
Eta1	- -	0.478	0.109
Eta2	- -	- -	0.215
Eta3	- -	- -	- -

GAMMA

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.091	0.070	0.020	0.032
Eta2	0.153	0.039	0.120	-0.112
Eta3	0.048	0.204	0.214	-0.072

Correlation Matrix of ETA and KSI

	Eta1	Eta2	Eta3	Ksi1	Ksi2	Ksi3
Eta1	1.000					
Eta2	0.526	1.000				
Eta3	0.252	0.259	1.000			
Ksi1	0.170	0.160	0.041	1.000		
Ksi2	0.127	0.092	0.200	-0.013	1.000	
Ksi3	0.099	0.127	0.180	-0.033	-0.084	1.000
Ksi4	-0.042	-0.112	-0.068	-0.026	-0.199	0.213

Correlation Matrix of ETA and KSI

	Ksi4
Ksi4	1.000

PSI
Note: This matrix is diagonal.

Eta1	Eta2	Eta3
0.696	0.888	0.914

Regression Matrix ETA on KSI (Standardized)

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.175	0.132	0.123	-0.037
Eta2	0.164	0.083	0.167	-0.127
Eta3	0.048	0.204	0.214	-0.072

TI Model2.2

Completely Standardized Solution

LAMBDA-Y

	Eta1	Eta2	Eta3
CS1_2	0.607	- -	- -
CS1_3	0.471	- -	- -
PI	- -	1.000	- -
ATT	- -	- -	1.000

LAMBDA-X

	Ksi1	Ksi2	Ksi3	Ksi4
AS	1.000	- -	- -	- -
IS1_1	- -	1.000	- -	- -
IS1_2	- -	- -	1.000	- -
RM	- -	- -	- -	1.000

BETA

	Eta1	Eta2	Eta3
Eta1	- -	0.478	0.109
Eta2	- -	- -	0.215
Eta3	- -	- -	- -

GAMMA

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.091	0.070	0.020	0.032
Eta2	0.153	0.039	0.120	-0.112
Eta3	0.048	0.204	0.214	-0.072

Correlation Matrix of ETA and KSI

	Eta1	Eta2	Eta3	Ksi1	Ksi2	Ksi3
Eta1	1.000					
Eta2	0.526	1.000				
Eta3	0.252	0.259	1.000			
Ksi1	0.170	0.160	0.041	1.000		
Ksi2	0.127	0.092	0.200	-0.013	1.000	
Ksi3	0.099	0.127	0.180	-0.033	-0.084	1.000
Ksi4	-0.042	-0.112	-0.068	-0.026	-0.199	0.213

Correlation Matrix of ETA and KSI

	Ksi4
Ksi4	1.000

PSI
Note: This matrix is diagonal.

Eta1	Eta2	Eta3
0.696	0.888	0.914

THETA-EPS

CS1_2	CS1_3	PI	ATT
0.632	0.778	- -	- -

Regression Matrix ETA on KSI (Standardized)

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.175	0.132	0.123	-0.037
Eta2	0.164	0.083	0.167	-0.127
Eta3	0.048	0.204	0.214	-0.072

TI Model2.2

Total and Indirect Effects

Total Effects of KSI on ETA

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.060	0.082	0.070	-0.030
	(0.032)	(0.059)	(0.054)	(0.077)
	1.874	1.399	1.303	-0.387
Eta2	0.086	0.079	0.145	-0.157
	(0.032)	(0.060)	(0.055)	(0.079)
	2.670	1.327	2.652	-1.991
Eta3	0.025	0.189	0.181	-0.086
	(0.031)	(0.057)	(0.053)	(0.076)
	0.797	3.287	3.436	-1.140

Indirect Effects of KSI on ETA

Ksi1	Ksi2	Ksi3	Ksi4

Eta1	0.028	0.039	0.059	-0.055
	(0.012)	(0.023)	(0.023)	(0.028)
	2.359	1.652	2.567	-1.941
Eta2	0.005	0.042	0.040	-0.019
	(0.007)	(0.018)	(0.017)	(0.018)
	0.776	2.377	2.431	-1.082
Eta3	- -	- -	- -	- -

Total Effects of ETA on ETA

	Eta1	Eta2	Eta3
Eta1	- -	0.312	0.143
		(0.066)	(0.065)
		4.756	2.190
Eta2	- -	- -	0.222
			(0.064)
			3.441
Eta3	- -	- -	- -

Largest Eigenvalue of B*B' (Stability Index) is 0.107

Indirect Effects of ETA on ETA

	Eta1	Eta2	Eta3
Eta1	- -	- -	0.069
			(0.025)
			2.788
Eta2	- -	- -	- -
Eta3	- -	- -	- -

Total Effects of ETA on Y

	Eta1	Eta2	Eta3
CS1_2	1.000	0.312	0.143
		(0.066)	(0.065)
		4.756	2.190

CS1_3	0.902	0.281	0.129
	(0.237)	(0.073)	(0.062)
	3.798	3.834	2.075
PI	- -	1.000	0.222
			(0.064)
			3.441
ATT	- -	- -	1.000

Indirect Effects of ETA on Y

	Eta1	Eta2	Eta3
CS1_2	- -	0.312	0.143
		(0.066)	(0.065)
		4.756	2.190
CS1_3	- -	0.281	0.129
		(0.073)	(0.062)
		3.834	2.075
PI	- -	- -	0.222
			(0.064)
			3.441
ATT	- -	- -	- -

Total Effects of KSI on Y

	Ksi1	Ksi2	Ksi3	Ksi4
CS1_2	0.060	0.082	0.070	-0.030
	(0.032)	(0.059)	(0.054)	(0.077)
	1.874	1.399	1.303	-0.387
CS1_3	0.054	0.074	0.063	-0.027
	(0.030)	(0.054)	(0.050)	(0.070)
	1.800	1.367	1.277	-0.386
PI	0.086	0.079	0.145	-0.157
	(0.032)	(0.060)	(0.055)	(0.079)
	2.670	1.327	2.652	-1.991
ATT	0.025	0.189	0.181	-0.086
	(0.031)	(0.057)	(0.053)	(0.076)
	0.797	3.287	3.436	-1.140

TI Model2.2

Standardized Total and Indirect Effects

Standardized Total Effects of KSI on ETA

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.175	0.132	0.123	-0.037
Eta2	0.164	0.083	0.167	-0.127
Eta3	0.048	0.204	0.214	-0.072

Standardized Indirect Effects of KSI on ETA

	Ksi1	Ksi2	Ksi3	Ksi4
Eta1	0.084	0.062	0.103	-0.069
Eta2	0.010	0.044	0.046	-0.016
Eta3	- -	- -	- -	- -

Standardized Total Effects of ETA on ETA

	Eta1	Eta2	Eta3
Eta1	- -	0.478	0.212
Eta2	- -	- -	0.215
Eta3	- -	- -	- -

Standardized Indirect Effects of ETA on ETA

	Eta1	Eta2	Eta3
Eta1	- -	- -	0.103
Eta2	- -	- -	- -
Eta3	- -	- -	- -

Standardized Total Effects of ETA on Y

	Eta1	Eta2	Eta3
CS1_2	0.466	0.223	0.099
CS1_3	0.420	0.201	0.089
PI	- -	0.714	0.154
ATT	- -	- -	0.693

Completely Standardized Total Effects of ETA on Y

	Eta1	Eta2	Eta3

CS1_2	0.607	0.290	0.129
CS1_3	0.471	0.225	0.100
PI	- -	1.000	0.215
ATT	- -	- -	1.000

Standardized Indirect Effects of ETA on Y

	Eta1	Eta2	Eta3
CS1_2	- -	0.223	0.099
CS1_3	- -	0.201	0.089
PI	- -	- -	0.154
ATT	- -	- -	- -

Completely Standardized Indirect Effects of ETA on Y

	Eta1	Eta2	Eta3
CS1_2	- -	0.290	0.129
CS1_3	- -	0.225	0.100
PI	- -	- -	0.215
ATT	- -	- -	- -

Standardized Total Effects of KSI on Y

	Ksi1	Ksi2	Ksi3	Ksi4
CS1_2	0.081	0.062	0.057	-0.017
CS1_3	0.073	0.056	0.052	-0.016
PI	0.117	0.059	0.119	-0.091
ATT	0.034	0.141	0.148	-0.050

Completely Standardized Total Effects of KSI on Y

	Ksi1	Ksi2	Ksi3	Ksi4
CS1_2	0.106	0.080	0.075	-0.022
CS1_3	0.082	0.062	0.058	-0.017
PI	0.164	0.083	0.167	-0.127
ATT	0.048	0.204	0.214	-0.072

Time used: 0.094 Seconds