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Silent communications - embodied between the lines : a study describing nonverbal behaviour patterns within the South African multicultural HIV treatment context.

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Chapter 6

Discussion.

This section will compare and contrast findings of the four individual interactions examined in chapter 5. The chapter will explore differences in nonverbal behaviours and interaction trends and will review these differences in conjunction with the current literature. Two tabulated summaries of these findings are also included. Data will then be reviewed in terms of theme convergence with previously collated interviews and ethnographies compiled at the research site. Triangulation methods will also be conducted with findings of previous South African multicultural health communication projects.

Two tables have been included below. The details derived from the analysis of the four interactions, summarised in tables 3-6, have been further condensed into table 7. Table 7 describes core nonverbal behaviours analysed in research transcripts and compares and contrasts these behaviours across all four interactions.

The second table, table 8 was derived from common interactional trends identified across all of the analysed transcripts. As with table 7, table 8 summarises these trends and compares similarities and differences between the individual interactions. Tabulated information related to the frequency of nonverbal behaviours and trends was derived through basic quantitative means (namely systematic counting of individual trends across interactions) and then was qualitatively described as measures along three descriptive continuums which included:

- Frequency of occurrence e.g. rare versus frequent;
- Level of behaviour occurrence e.g. average versus above average; and
- Quality of behaviour e.g fair versus poor.

Table 7 – A Summary of Observed Nonverbal Behaviour Patterns within all Analysed Interactions.

Type of nonverbal behaviour	**Interaction "a"**	**Interaction "b"**	**Interaction "c"**	**Interaction "d"**
GESTURE				
Opaque gestures implemented	Occasionally	Not observed	Not observed	Occasionally
Substitution gestures implemented by caregiver	Often	Not observed	Occasionally	Not observed
Supplementary gestures implemented by doctor	Often	Occasionally	Rare	Frequent
Increase in gestural use by caregiver when topic content appears to be of perceived importance to caregiver	Frequent	Frequent	Frequent	Rare
Increases in gestural behaviour by doctor when topics related to medical content discussed	Often	Occasionally	Rare	Frequent
Implementation of gestures by doctor at moments of communication breakdown	Yes	Yes	No	Yes
Gestures implemented by doctor have clear semantic relationship	Often	Occasionally	Not observed	Frequent
Act gestures occurred	Occasionally	Occasionally	Often	Rare
Universal gestures occurred	Yes	Yes	No	Yes
Multimodal nonverbal use i.e. gesture coupled with other facilitative nonverbal pattern	Rare	Rare	Never	Often
Increase in hand-flicking or hand to face contact behaviours when topics of a sensitive nature were discussed or when patient topics of interest not acknowledged by doctor	Yes	Yes	Yes	Yes
HEAD POSTURING				
Occurrence of sequential head posturing	Often	Often	Occasionally	Frequent

Increases in degree of head movement when topics being discussed appeared to be of importance to patient	Yes	Yes	Yes	Yes
Increases in degree of head movement related to specific discussed information	No	No	No	Yes
Non-sequential head posturing observed	Occasional	Occasional	Often	Did not occur
Use of head posturing on part of doctor to affirm patient responses	No	No	No	Yes
Use of head posturing on part of doctor to emphasise personal opinion	No	No	Yes	No
Brisk patient head posture when sensitive topic discussed	Yes	Yes	Yes	Yes
BODY POSTURE				
Forward caregiver body posture when topic of apparent importance discussed	Yes	Yes	Yes	Yes
Forward caregiver body posturing when "moments of collaboration" occurred	Yes	Yes	Yes	Yes
Frequency of forward body posturing	Often	Often	Occasional	Frequent
Backward caregiver body posture in relation to sensitive topics of discussion	Yes	Yes	Yes	Yes
Forward body posturing on part of caregiver at suspected areas of communication breakdown.	Frequent	Occasional	Occasional	Never
Change in practitioner backward body posture when patient initiated topics of interest	Rarely	Rarely	Never	Rarely
EYE GAZE				
Increase in caregiver eye gaze behaviours when topics of apparent importance were being discussed.	Yes	Yes	Yes	Yes
Caregiver maintenance of mutual eye gaze behaviours at areas of communication break-down or poor communication transfer	Occasional	Occasional	Frequent	Did not occur
Duration and frequency of eye gaze behaviour patterns on the part of the doctor	Occasional	Occasional	Infrequently	Frequently
Use and maintenance of eye gaze on the part of the doctor when discussing treatment	Occasional	Occasional	Rare	Often

plans				
Change in doctor eye gaze when topics which were of importance to caregiver discussed	Rare	Rare	Never	Rare
Reduction in patient eye gaze when topics discussed were of a sensitive nature to the caregiver	Yes	Yes	Yes	Yes
Reductions in eye gaze in response to the doctor's reduction in eye gaze behaviour	Yes	Yes	Yes	Yes
Increases in patient eye gaze behaviours during "moments of collaboration within the interaction"	Yes	Yes	Yes	Yes
Increases in doctor eye gaze behaviours during "moments of collaboration"	Yes	Yes	Yes	Yes
FACIAL ANIMATION				
Reduced facial animation caregiver when sensitive topic content discussed	Yes	Yes	Yes	Yes
Increases in facial animation on the part of caregiver during "moments of collaboration"	Yes	Yes	Yes	Yes
Increases in doctor facial animation during "moments of collaboration"	Yes	Yes	Yes	Yes

Table 8: A Summary of Interactional Trends Observed in the Analysed Interactions:

Identified Theme	**Interaction "a"**	**Interaction "b"**	**Interaction "c"**	**Interaction "d"**
Participation from health professional	Average	Average	Minimal	Above average
Participation from patient	Fluctuates	Fluctuates	Fluctuates	Fluctuates
Communication breakdowns	Often	Occasionally	Frequent	Rare
Communication Repairs – doctor	Often – occurred at	Often – occurred at	None	Frequent –

	most points of communication breakdown	most points of communication breakdown		occurred whenever breakdown occurs
Doctor's awareness of likelihood for communication breakdown	Above average	Above average	Minimal	Highest level of awareness displayed
Evidence of different agendas	Often	Often	Often	Often
Implementation of strategies for communication transfer by doctor	More than occasionally	Occasionally	Rare	Often
Implementation of strategies for communication transfer by caregiver	More than occasionally	Rare	Occasionally	Rare
"humanised" and "personalised " moments – "moments of collaboration"	Occasionally	Occasionally	Rare	Often
English proficiency of care giver	Poor	Fair	Poor	Fair
Evidence of negative relationship dynamics	Occasionally	Occasionally	Often	Occasionally
Evidence of positive relationship dynamics	Occasionally	Occasionally	Rare	Often
Themes related to cultural social structures evident	No	Yes	No	No

6.1 Discussion of Nonverbal Behaviours in Relation to Identified Trends.

The findings of table 7 and 8 when contrasted with the relevant literature outlined in chapter 2, identify that there are definite correlations between nonverbal behaviour patterns of the four interactions and interactional, cultural and communicative trends observed in these treatment sessions.

To create a more logical format in terms of results, interpretation and discussion, this section has been divided in to smaller subsections, which focus on three pivotal trends identified in the analysed data. It is important to note, however that due to the interrelated nature of these concepts within communicative interactions no two trends can be completely separated from one another. Thus although specific sections of this discussion will focus on core trends and associated behaviours related to these, mention of other associated and influential trends may be made within these sections. This is to ensure that a holistic view, in terms of the medical interaction, is maintained.

6.1.1 Nonverbal Behaviours and Communicative Transfer.

Analyses of the interactional transcripts identify that trends exist between nonverbal behaviours and information transfer within the medical session. More specifically definite links were observed between gesture and eye gaze behaviours and the efficacy of communicative transfer within individual treatment sessions.

Tables 7 and 8 illustrate that that the implementation of gesture by all participants in the analysed communicative interactions displays their levels of awareness as to the likelihood for communication breakdown. This assumption is supported by the use of gestures across all treatment sessions, coupled with the timing of gesture implementation in these communicative exchanges. The tables identify that gesture implementation in all interactions occurred at critical time points of communication transfer, whilst occurring at moments of communication breakdown for the majority of analysed medical sessions. This suggests that gesture implementation within these interactions was often purposeful and aimed at improving information transfer (Özyűrek & Kelly, 2007; Kendon, 2004:1). Tables 7 and 8 however illustrate that although gestures were implemented within all interactions the quality, frequency and efficacy of this gestural use did vary substantially between treatment sessions and correlated with levels of information transfer.

The health practitioners' use of gesture within all of the treatment sessions were noted as varying in terms of quality and quantity. Information transfer appeared to be most successful in communicative interactions where doctors used large numbers of high quality gestures that were clearly linked to a semantic concept. Such gestures included co-speech gestures, transparent gestures and mutually established and shared opaque gestures (Özyűrek & Kelly, 2007; Nespoulous et al., 1986: 51-53). Tables 7 and 8 further support the observation that as gesture quality increased in the analysed interactions effective communicative transfer increased. This is evidenced through the consistent decrease in communication breakdowns and caregiver non-sequential head posturing behaviours at these interactional time points – suggestive of improved information transfer (Koole, 2004). This observation thus suggests a

direct link between the effectiveness of communication transfer within the observed interactions and the type of gesture used within these healthcare settings. This point has been confirmed through past studies and existing literature (Argyle, 1972; Argyle, 1996; Nespoulous et al., 1986).

Table 7 and interaction "d" further support this point. Table 7 identifies that the most successful interaction in terms of gestural implementation was that of interaction "d". The doctor in this interaction, as is highlighted by table 8, displayed the greatest awareness of communication barriers in the treatment session. He was thus noted as implementing the highest number of nonverbal strategies aimed at facilitating communicative transfer. More specifically doctor "d" was noted as using the highest number of high quality, co-speech gestures of all interactions which were coupled with other nonverbal modalities such as eye gaze. These gestural implementations frequently occurred with increases in caregiver eye contact behaviour, sequential head posturing and increases in predictable topic turn behaviours on the part of both communicative participants. All of these observed caregiver nonverbal and verbal behaviours suggest effective communicative transfer between the interaction participants and support observations regarding the relationship between high quality gesture use such as co-speech gestures and information transfer (Novick et al., 1998; Koole, 2004; Özyűrek & Kelly, 2007). Although not as frequent, high quality co-speech gestures were observed amongst other medical interviews with similar positive effects.

Conversely less effective communicative transfer indicated through a combination of the following reduced levels of sequential head posturing behaviour, increased caregiver requests

for clarification of specific content, non-sequential head posturing and/or illogical verbal output sequences were observed more frequently in interactions where doctor awareness of communication barriers was limited (Koole, 2004). This point is most true in interaction "c" and highlights the fact that although gesture is closely correlated to levels of communicative success, a core and thus crucial factor influencing this nonverbal use, and thus information transfer, is that of practitioner awareness. All of these patterns thus suggest that there is a correlation between practitioner awareness of communication barriers in the treatment session and propensity for health practitioners to use high quality gestures and other nonverbal methods to facilitate communicative transfer. This can be seen in tables 7 and 8.

Table 7 and 8 further demonstrate that the relationship between type of gesture and quality of communication transfer is not restricted solely to co-speech gestures but to opaque and universal gesture use as well. It is important to note that the use of opaque gestures in interaction "a" can be described as being high quality in nature due to the fact that such gestures were mutually understood, consistently used and shared by both participants during the interaction. In contrast, instances in medical interactions that used gestures which were action-based or lacked shared or universal meanings correlated with reductions in effective communication transfer. This point is due to the unclear relationship between such gestures and the semantic concepts they wish to illustrate (Birdwhistell, 1970; Nespoulous et al., 1986).

Table 7 highlights that doctor "c" used the least amount of gesture of all interactions. This gestural use consisted predominantly of act gestures, with limited co-speech and transparent

gestures and no opaque gestures. Doctor "c"'s gestures can thus be described as being of poor quality with minimal facilitative effects on communicative transfer (Argyle, 1975:251; Özyűrek & Kelly, 2007). This specific point is supported by table 7, which indicates that interaction "c" had the least amount of sequential patient head posturing behaviours, higher levels of non-sequential head posturing and frequent caregiver requests for clarification of specific topic content. Caregiver understanding of core concepts related to HIV and treatment – displayed through caregiver comments - were also often noted as being inaccurate. All of these observations indicate higher levels of ineffective communicative transfer (Koole, 2004). Table 8 also identifies that the doctor in interaction "c" displayed the lowest levels of awareness regarding communication barriers within the interaction, indicated through his nonverbal behaviour and verbal use. The stark contrast between interactions "c" and "d" coupled with the generalised observations of interactions "a", "b", "c" and "d" thus solidify assumptions regarding the correlation between nonverbal behaviour use and the efficacy of communicative transfer within the healthcare interaction. These interactions also identify that levels of practitioner awareness regarding communicative efficacy play a vital role in nonverbal behaviour implementation and thus communicative success. This last point illustrates the need and value for medical education programmes that specifically facilitate increased healthcare worker awareness and use of nonverbal behaviour strategies to foster more effective medical interactions and thus treatment outcomes.

Caregiver gestural use also corresponded to specific trends within the treatment interactions. It was noted that caregivers' use of gestures corresponded to the level of caregiver language proficiency and thus levels of communicative transfer. Tables 7 and 8 illustrate that

caregivers who were the least proficient in the English and Afrikaans language (namely “a” and “c”) were those individuals who used substitution gestures within the communicative interaction. These caregiver behaviours often corresponded with a combination of; increased use of code-switching behaviours, non-sequential head posturing behaviours, reduced eye contact behaviours, illogical sequencing of verbal outputs and grammatical errors. All of these behaviours - common in second language speakers who are not fully proficient in a given language - confirm assumptions regarding the level of skill and confidence of these caregivers with the language that these sessions were conducted in (Koole, 2004). Those caregivers most proficient with the English language were noted as solely using supplementary gestures during the treatment session. These points are further confirmed by table 8 which highlights that interactions “a” and “c” possessed the highest number of communication breakdowns of all the analysed transcripts.

Eye gaze behaviours also demonstrated certain parallels with interaction trends related to information transfer. Although generally being perceived as a behaviour, which provides information on interactional dynamics between doctor and patient, eye gaze also provides insight into the efficacy of communicative transfer (Argyle & Kendon, 1967). Tables 7 and 8 highlight that reduced doctor eye gaze behaviours frequently corresponded with increased doctor inabilities in identifying communication breakdowns during the treatment sessions. This it is felt is related to the monitoring function that eye gaze behaviours provide in terms of nonverbal feedback within communicative interactions (Argyle, 1975:233; Novick et al., 1998; Verbitskaya et al., 2007). Although all doctors were observed as functioning within an asymmetrical framework of eye gaze behaviour, definite differences in doctor eye gaze

patterning were noted across the different interactions. These variations in frequency of doctor eye gaze behaviour often appeared to co-occur with variations in non-sequential head posturing behaviours and overt communicative breakdowns. This thus further emphasises that individual interactions did vary in terms of levels of communicative efficacy (Novick et al., 1998).

Table 7 and 8 illustrate and interaction "d" further supports observations regarding the link between communicative efficacy and eye gaze behaviour. In particular the doctor in interaction "d" was noted as using high levels of eye gaze behaviour. Although, doctor "d" used eye gaze behaviours frequently in the interaction, specific peaks in eye gaze behaviour can be correlated to critical moments of information transfer during the treatment session namely; when the doctor and patient were discussing treatment considerations and procedures. These increases in eye gaze behaviour correlated closely with increases in communicative transfer – a point indicated by the caregiver's increased sequential head posturing as well as through the effective sequencing and logical format of her verbal output (Argyle & Kendon, 1967; Koole, 2004). In contrast, doctor "c" was noted as using limited eye gaze behaviours during treatment interaction "c". This corresponded with reduced levels of communicative efficacy in the interaction, as is highlighted in table 8. These overt differences between interactions "c" and "d" thus further emphasise the distinct correlation between nonverbal behaviour patterning on the part of the doctor and efficacy of communication transfer within the specific context of the medical interaction.

Interestingly, as with gesture, it was noted that all doctors implemented some level of eye gaze behaviour at similar critical time points within their corresponding health care interactions. Although this nonverbal behaviour implementation varied between practitioners it does support previous assumptions regarding the fact that all doctors possessed an inherent awareness of the likelihood for communicative break down within the healthcare interaction and the need for nonverbal strategies in this regard. This point is highlighted in table 8. It is thus anticipated that although certain doctors were less efficient in implementing eye gaze and monitoring communicative transfer, this core awareness may prove useful in facilitating medical training programmes that incorporate the use of nonverbal techniques in securing effective medical interactions.

As with gesture it was noted that caregiver eye gaze behaviours were linked to communicative transfer. Although these patterns were not observed in all interactions, these observations are still felt to be valid as they were observed in the majority of analysed transcripts ("a", "b" and "c"). Table 7 illustrates that caregiver eye gaze was maintained during moments of ineffective communicative transfer where caregivers attempted to gain further clarification of specific discussed topics. These behaviours were noted as commonly occurring with a combination of one or more of the following; non-sequential head posturing, increased questions being asked by certain caregivers, reduced levels of participation and reduced verbal output, as well as incongruent and illogical verbal outputs and topic turns within the interactions. As is highlighted in tables 7 and 8 doctor eye gaze and thus nonverbal acknowledgement of these specific communicative breakdowns frequently varied between interactions. This was particularly influenced by the asymmetrical

structure of the healthcare interaction as well as each doctor's individual levels of awareness regarding communication barriers in the observed treatment session. This point confirms assumptions regarding the relationship between eye gaze behaviour and information transfer in the analysed transcripts.

6.1.2 Nonverbal Behaviours and Culture.

Although the majority of analysed interactions displayed subtle cultural trends, interaction "b" distinctly demonstrated definite links between differences in culture, nonverbal behaviours and levels of caregiver collaboration within the session. Table 8 identifies that in interaction "b" the presence of a second, older caregiver did give rise to cultural themes related to the authoritative role of the older female within the healthcare interaction (Lustig & Koesler, 1993). In particular it was noted that doctor "b" frequently did not recognise verbal and nonverbal behaviour patterns which illustrated the older caregiver's cultural authority within the interaction. This was indicated through increased older caregiver eye gaze behaviour, forward body posturing and increased topic initiation behaviours and suggests that the doctor's minimal nonverbal acknowledgement behaviours had direct links to caregiver participation and interactional dynamics within the communicative interaction (Argyle, 1975:230-275). In particular as the doctor failed to acknowledge the older caregiver's role within the communicative interaction through nonverbal behaviour such as eye gaze, so both caregivers' collaborative behaviours decreased and nonverbal behaviours of reduced eye gaze behaviour, backward body posturing and reductions in facial animation increased. This specific dynamic it is felt highlights the correlation between nonverbal

behaviour, culture and interactional dynamics within the healthcare interaction. It also confirms researcher assumptions regarding the influence of culture in cross-cultural healthcare interactions in the South African healthcare context. This relationship between nonverbal behaviour, interactional dynamics and culture further infers that such cultural differences will have direct influences upon patient satisfaction levels. Possible threats to short and long term prognostic patient outcomes are thus identified (Butcher et al., 2001).

6.1.3 Nonverbal Behaviours and Interactional Dynamics.

Through the information collated in table 7 and 8 coupled with the analyses of all four interactions, correlations between nonverbal behaviour patterns and interactional dynamics were noted.

As is seen in tables 7 and 8, nonverbal behaviours within the interaction provided valuable information as to relationship dynamics within each session. Through nonverbal behaviours such as backward body posture, reductions in facial animation and eye gaze, correlations between nonverbal behaviour and strained interpersonal dynamics were evident (Novick et al., 1998; Argyle & Cook, 1976; Argyle, 1972: 252-253). In particular it was observed that as these nonverbal behaviours increased so negative interactional and thus caregiver collaborative and participation behaviours decreased. These changes in nonverbal behaviour frequently occurred when sensitive issues such as disclosure, illness, sexual history, socioeconomic factors etc. were discussed. Conversely forward body posturing, increases in eye gaze behaviour and increases in facial animation correlated with positive interactional

dynamics and increases in caregiver topic initiation and participation behaviours. This point not only suggests a correlation between nonverbal behaviours and interactional dynamics but also identifies that specific topics initiated by individual caregivers within the separate interactions were of interest to them (Argyle, 1996).

Unfortunately doctors in all of the treatment sessions frequently failed to acknowledge and address caregiver topics of importance and interest adequately. Table 7 demonstrates this point through highlighting the co-occurrence of limited topic maintenance behaviours as well as nonverbal behaviours of indifference and disinterest displayed by the doctors through backward body posture behaviours and limited eye gaze patterns at these specific time points (Verbitskaya et al., 2007; Argyle, 1975:272). This point is not only important from a nonverbal stand point but also highlights the fact that participant agendas and perceptions within the analysed interactions did differ, as would be anticipated in traditional biomedical models of healthcare (Helman, 1997; Kaba & Sooriakumaran, 2007).

Practitioner nonverbal behaviours of indifference and disinterest frequently correlated with a decline in caregiver nonverbal behaviour patterns related to interpersonal states of interest and involvement and thus positive interactional dynamics in the treatment sessions. Table 7 further highlights that these behaviours also co-occurred with noticeable increases in caregiver gestural behaviours of frustration such as hand to face contact behaviours and hand flicking behaviours (Argyle, 1975).

As with previous observations related to nonverbal behaviour and practitioner and caregiver participation, the doctor in interaction "c" was observed as providing the least amount of nonverbal feedback during caregiver topics of importance. This interaction, as is highlighted in table 8, was noted as having the least amount of patient participation, and positive interactional dynamics of all the observed treatment sessions. Assumptions regarding the correlation between nonverbal behaviour patterns, relationship dynamics and levels of patient interaction within the multicultural medical encounter are thus confirmed.

Nonverbal behaviours of symmetry and asymmetry further support researcher observations regarding the correlation between interactional dynamics and nonverbal behaviour. For the majority of all observed interactions, behaviours of symmetry were noted as predominantly being initiated by the health practitioner. These coupling behaviours were observed as primarily being limited to eye gaze behaviours. This pattern of coupling behaviour therefore supports assumptions regarding the traditional biomedical approach to treatment provision used in all of the analysed healthcare interactions. The tendency of caregivers to exhibit nonverbal behaviours of symmetry in relation to eye gaze may suggest the caregivers' attempts at providing feedback in terms of attention, interest, agreement and understanding towards doctors within healthcare sessions (Boker & Rotando, 2001).

However as the analysed sessions progressed and reciprocal health practitioner coupling behaviours did not occur, increases in disruptions of patient mirroring behaviours were noted. These increased breaks in caregiver coupling behaviours were noted as co-occurring with increases in brisk head posturing behaviours, backward body posturing behaviour,

reduced facial animation and reduced eye gaze behaviour; suggestive of negative interactional dynamics (Argyle, 1975:272; Verbistkaya et al., 1998). These behaviours were also noted as co-occurring with reductions in patient participation levels. The relationship between nonverbal behaviours and interactional dynamics within the treatment session is thus highlighted through the decrease in caregiver coupling behaviours, interactional dynamics and patient participation behaviours. These correlations also identify the substantial influence poor practitioner nonverbal awareness and thus implementation has in terms of effecting caregiver behaviours and overall treatment outcomes. This point is strongly illustrated through the trends and relationship dynamics of interaction "c" and provides further input for medical training considerations.

Correlations between behaviours of symmetry and positive relationship dynamics were also evident in all of the analysed transcripts. In particular noticeable peaks in quality of relationship dynamics exhibited direct links to that of observed "moments of collaboration", identified in table 8. These specific interactional moments were noted as co-occurring with increased moments of patient-initiated coupling behaviours in the form of facial animation. An interesting observation related to these critical moments was that the child was a central focus at these time points across all interactions. This therefore suggests that the child is a common factor and facilitator of these interactional instances. "Moments of collaboration", are felt to be particularly critical to interactional dynamics in the medical interaction as they are the only instances within analysed transcripts where patient initiated coupling behaviours are acknowledged and mirrored by all of the health practitioners. These moments signalled a

definite break from patient practitioner roles in the interaction where patient and practitioner engaged at a more personal level. This point is noted in table 8.

Identified “moments of collaboration” thus saw direct increases in positive relationship dynamics within all of the analysed transcripts - indicated through increases in facial animation, forward body posturing and increased eye gaze behaviour (Argyle & Kendon, 1967). Increases in these nonverbal behaviours were also noted as correlating directly with peaks in the degree of caregiver participation levels in all of the observed interactions. In such instances caregiver response, participation and collaboration behaviours were optimal. These instances of enhanced dynamics did vary between interactions. Thus it was noted that enhanced levels of relationship dynamics corresponded directly with the amount of “collaborative moments” and caregiver initiated and reciprocated coupling behaviours observed. Table 8 demonstrates that interaction “d” which displayed the greatest amount of personalised moments and coupling behaviours was thus the interaction with the highest level of positive interactional dynamics. It was also the interaction with the greatest amount of caregiver eye gaze behaviours, forward body posturing and facial animation. Interaction “c” contrasts significantly with “d” and thus supports statements regarding the link between nonverbal behaviours such as coupling and interactional dynamics within the treatment session. This relationship also identifies the value these critical interaction moments may possess in terms of medical education programmes.

6.1.4 Conclusion and Summary.

This section of chapter 6 explored observed patterns of behaviour through comparing analyses of individual interactions with one another as well as with the relevant literature. The relationship between nonverbal behaviours and specific trends discussed in this section highlight some core considerations. The first relates to the fact that there is a firm link between the use and quality of practitioner nonverbal behaviour patterns within sessions and the quality of communicative transfer. More specifically it becomes evident within these results that limited doctor nonverbal awareness within treatment sessions co-occurs with reduced levels of nonverbal behaviour patterns being implemented by these doctors. This in turn possesses high levels of correlation with poor patient understanding, and reduced patient response and thus satisfaction to the medical treatment session (Friedland & Soloway, 2000). These patient behaviours and responses are clearly illustrated through observed nonverbal behaviours such as eye gaze, body and head posture and gesture, and are of concern due to the marked influence such patient attitudes have on HIV treatment adherence and success (Lochman, 1983; Friedland & Williams, 1997).

Correlations between nonverbal behaviours and communicative transfer also appear to suggest consistent patterns in terms of the roles of specific types of nonverbal behaviours within this highlighted relationship. Thus certain nonverbal behaviours such as eye gaze and gesture serve a predominantly facilitative role within the context of communicative transfer and primarily aim to enhance the communicative exchange of information (Argyle,1975:251; Özyűrek & Kelly, 2007, Mehrabian, 2007:1-2). Conversely other nonverbal behaviours, such

as head posturing serve a more illustrative role and thus appear to indicate the efficacy of communicative transfer (Koole, 2004). This observation is of critical importance to note when developing and establishing prospective medical training programmes that incorporate nonverbal behaviour analysis and use as part of their curricula.

Doctor nonverbal behaviours and their relationship with interpersonal dynamics (indicated primarily through behaviours of body posturing, eye gaze, gesture and facial animation) are also an important point to note from these results. In particular the direct link between interactional dynamics and nonverbal behaviours observed in medical treatment interactions are felt to have strong implications for levels of patient collaboration and satisfaction in these sessions. Doctor nonverbal behaviour patterns are therefore anticipated as playing a pivotal role in medical interactions through their influence upon interactional dynamics, patient satisfaction and thus ultimately treatment adherence and success (Friedland & Williams, 1997; Friedland & Soloway, 2000). As with communicative transfer, it appears that certain nonverbal behaviours fulfil specific roles in terms of the facilitation and indication of effective interpersonal relations.

The third core consideration, which these results highlight, is that critical interactional moments exist within the healthcare interaction. These moments appear to be influenced and facilitated by the presence of the child patient in the interaction. It is felt that these moments can foster enhanced communicative transfer and relationship dynamics between patient and practitioner through disrupting traditional roles in the healthcare interaction and allowing participants to interact on a more personal level. It is also anticipated that such moments

possess significant potential in terms of medical education programmes; where health practitioners are trained how to facilitate and use such instances to better achieve positive interactional and communicative outcomes within treatment sessions. These moments also emphasise the value patient-centred medical approaches possess in terms of cross cultural healthcare (Kaba & Sooriakumaran, 2007).

Despite this point the limited number of mirroring behaviours on the part of all doctors observed, coupled with correspondences in observed nonverbal behaviour patterns and interactional dynamics, suggest that communicative parties are still generally unaware of the existence of such moments and their potential. These medical interactions thus largely remained practitioner-led, a point, which is further confirmed by, observed links noted between nonverbal behaviours and interactional dynamics in all of the treatment sessions. Current South African multicultural interactions, such as these, thus appear to operate within the asymmetrical medical framework of the traditional biomedical approach, for the majority of the medical interview (Helman, 1997:101). Observed coupling behaviours thus not only emphasise the value these moments posses in terms of facilitating interaction transfer but also highlight the asymmetries and power plays present within the South African multicultural medical interaction. Coupled with this point is the fact that research results confirmed assumptions regarding the anticipated effects differences in culture, socioeconomic status, experience and participant agendas have on the medical interaction. This point was frequently demonstrated through differences in agenda and reduced interactional dynamics across all interactions - evidenced through nonverbal behaviour patterning. Thus these influences were linked to nonverbal behaviour use and interactional

dynamics and their manifestations further support observations regarding the medical approach being used in these healthcare interactions.

Research results and the interesting patterns yielded from data analysis also illustrate the usability of polyphonic transcription methods in accurately and comprehensively describing nonverbal behaviour patterns and associated themes in the healthcare treatment context. This point is particularly true for the description of coupling behaviours observed in all of the treatment interactions.

The final consideration, which arises out of these research results, relates to the fact that suspected disruptions in communicative transfer and interactional dynamics – as evidenced through nonverbal behaviours - do occur and thus the efficacy of overall treatment outcomes and adherence in terms of these and other multicultural interactions are of concern. This point coupled with previous results thus provides strong rationale as to the role of nonverbal behaviour training in medical teaching programmes.

All of these findings thus have important implications for understanding current cross-cultural medical encounters and the role of nonverbal behaviours within these whilst also providing input on how to facilitate future positive, cross-cultural medical experiences.

6.2. Triangulation of Research Results.

In order to enhance study credibility, dependability and transferability, research results from the analysed transcripts were cross-compared with data from the research site – referred to as intra-triangulation in this dissertation. Results were also cross-compared with research findings and trends from the broader South African healthcare context – referred to as inter-triangulation.

6.2.1 Intra-Triangulation.

Analyses of interviews with study participants at the research site as well as ethnographies will now be discussed. This section will draw on evidence from this specific data set and others at the research site in order to support the findings of this current study, as well as to offer some confirmation for the conclusions drawn.

6.2.1.1 Participant Interviews.

This section will review interviews analysed by Cilliers and Schwartz in February 2004. The section consists of interviews of study participants (caregivers and health practitioners) from the study's specific data set as well as two tabulated summaries of interviews of general doctors and caregivers from the research site. This inclusion of participant interviews, which are not from the observed data set it is felt, will further corroborate arguments regarding research results (through fostering a form of inter-triangulation) and will thus enhance study

strength. It is important to note that because research data was initially collected for the purposes of verbal analysis no focus in the compiled interviews was placed on nonverbal behaviours. This thus makes it difficult for the researcher to corroborate nonverbal behaviour observations with interview content. The researcher has thus, instead aimed to identify core trends in the analysed interviews which were highlighted in research results. It is felt that due to the close correlation between these trends and their associated nonverbal behaviours, research conclusions will be supported through the convergence of this data.

i. Doctors:

For the purposes of these interview extracts "D" will refer to the doctor being interviewed and "I" to the interviewer.

Table 9: Health Practitioner Interviews from the Research Site:

Trend	**Evidence**
Communication breakdowns in multicultural medical interactions at research site	Extract 6.2.3 "I: What language did you grow up speaking? D: We spoke mainly English, but on Sundays we spoke Afrikaans as well. I: Any other languages? D: No"

	Extract 6.2.4 "I: What is the linguistic distribution amongst the centre's patients?" D: I would think 80% of the patients are isiXhosa and 20% are Afrikaans or English…" Extract 6.2.5: "I: Do you think there's a need for interpreters in the hospital? D: Yes, hmmm…I think well …we do have 2 interpreters, but for the amount of work they do I think it's too little and it's availability is a problem, because as I said the workload is a lot and often when you need them they can't actually come."
Awareness for likelihood of communication breakdowns	Extract 6.2.7 I: Many of the patients who come here are not English or Afrikaans speaking, but most of the doctors who work here are. Do you think that it affects the quality of service that the patient's receive? D: Yes… Extract 6.2.8 "D: Um, here most patients speak isiXhosa but some tend to be able to speak at least smatterings of English or Afrikaans…..the medical officers are appalling they will speak English and Afrikaans only." Extract 6.2.9

	I: Many of the patients who come here are not English or Afrikaans speaking, but most of the doctors are. Do you think this effects the quality of service they receive? D: Yes. <u>Extract 6.2.10</u> I: Do you think there's a need for interpreters in the hospital? D: Yes, hmmm…I think well …we do have 2 interpreters, but for the amount of work they do I think it's too little and it's availability is a problem, because as I said the workload is a lot and often when you need them they can't actually come.
The influence of culture on interactions.	<u>Extract 6.2.11</u> D: Yes…it's not just about language, I think Xhosa is also, it's a cultural language….the language also depends on the culture…..addressing granny is very different to English or Afrikaans…so I think it would help if we had more people who are not necessarily Xhosa-speaking, but who know about the traditions and culture." <u>Extract 6.2.12</u> I: Do you have any knowledge about the Xhosa culture?" D: Very little…. I: And in an interview situation do you feel at a disadvantage because of this? D: Yes <u>Extract 6.2.13</u> D: There is no word for cancer in isiXhosa. So you have to explain what you mean by cancer. I understand cancer is an English word, but in isiXhosa there is no

	actual word for it. But also isiXhosa culture in the simplistic isiXhosa culture, there is very little of what is perceived as caring for dying children. Once I know that the children are off treatment and we've met them terminally it is actually quite difficult to keep the rural parents here, because they have given up and go home and prepare for the funeral. And they don't see it the way we would perceive it. Actually when I first saw it, it made me very angry, because I thought the child was being abandoned, but it is purely a cultural thing.
	Extract 6.2.15 I: Do you think that in this consultation you were able to gain an understanding of the child's illness within the family situation? D: I didn't really ask about the social environment…

Interviews conducted by members of the research team at the research site appear to confirm a number of trends identified within analysed data transcripts. In particular doctors' interviews confirm trends related to the occurrence of communication breakdowns in these medical interactions. This, the doctors from interactions "a", "b" and "d" identify as being related to the differences in language between patients and practitioners. Doctor "d" in extract 6.2.2 however extends this observation further to indicate that often, although patients speak small amounts of English, doctors frequently don't measure and incorporate the level of caregivers' English proficiency in these interactions. This in turn contributes to communication breakdowns in these medical environments. Practitioner comments by other health professionals in table 9 further support these comments through illustrating the significant barriers in language present

within these interactions and thus the propensity for communication breakdown. The identification of trends related to the success of communicative transfer within the healthcare interactions is therefore supported.

Extract 6.2.1 – taken from interview with doctor in interactions "a" and "b":

D: But it's no different to other, uhm to any other clinic. I think the most, mostly the obvious the obvious barrier is the language…uhm…the language barrier in actually in in wanting to and cannot communicate even, even when, even with a little bit of (day) patients speaking a bit of English.

Extract 6.2.2 – taken from interview with doctor from interaction "d":

I: We are hearing from our, we are hearing from the, the people who are interviewing the patients that some patients say even although they can speak English they still don't understand when the doctor talks about anti-retrovirals and CD 4 counts. We are getting that coming through. I mean we haven't analysed the tapes yet.

D: That is important information because we ask them do you speak English we do not ask them do you understand.

I: Yes!

D: We should ask whether they understand English, not if they speak English.

Interviews also confirm findings regarding practitioner awareness of the likelihood for communication breakdown and the levels of communicative transfer. Variations in levels of practitioner awareness of communication transfer are also confirmed. This is demonstrated in the differences in insight displayed by the doctors in extracts 6.2.1 and 6.2.2. The doctor in 6.2.1 displays a basic awareness to the fact that communication breakdowns are principally linked to language barriers. The doctor in extract 6.2.2 ("d") however extends this observation further to reflect on the communication process and the practitioner's role within it. This illustrates his understanding of communication barriers as being more complex with multiple aspects to consider. This point is further corroborated by the doctor's insight into the nature of communication breakdowns within the medical interaction and the purpose of linguistic brokers in the healthcare treatment encounter. This can be viewed in extract 6.2.6. This increased communication awareness of practitioner "d" in comparison to the health practitioner from interactions "a" and "b" correlates with findings regarding the links between efficacy of communicative transfer, nonverbal behaviour observations and levels of practitioner awareness displayed across analysed medical sessions. This point is further corroborated by the levels of efficacy of communicative transfer illustrated across analysed interactions through nonverbal behaviours such as head posturing. Doctor "d"'s distinctive success in this regard is therefore supported by his levels of insight into communicative transfer illustrated in interview comments. Findings regarding practitioner awareness of communication

barriers are further supported through other interview extracts from the research site illustrated in table 9.

Extract 6.2.6 – taken from interview with doctor "d".

D: We ask have you, do you understand. And they just say: 'yes, yes, yes'. And, uhm, have you got any questions, and the patient says no.

I: You can't tell.

D: So that is why, what we have insisted now is that not only do we counsel, but the *wanenani* counselor does the counseling independent of us. And they take us out of the equation and they go and sit with the mothers, the parents and mothers and often they can get more out of them.

Doctor interviews also confirmed researcher suspicion and result findings regarding the influence of culture upon medical interactional dynamics and thus patient satisfaction and treatment outcomes. This point is demonstrated in extracts 6.2.11 and 6.2.12 in table 9.

Although health practitioner responses suggest a basic awareness on the part of the doctors in terms of the existence of communication barriers, it does become apparent, through interview analyses that doctor awareness and insight into social and emotional influences and patient concerns within the healthcare interaction are still limited. This is

evidenced in extract 6.2.14 where the doctor indicates that such issues are often not probed or acknowledged in treatment sessions due to various constraints such as time and culture. This point relating to differences in medical and patient agendas was a recurrent trend in all analysed transcripts, which was distinctly illustrated through nonverbal behaviours. The doctor's comments in interactions "a" and "b" are further confirmed by interviews of other health practitioners interviewed at the research site such as is seen in extract 6.2.15 in table 9.

Extract 6.2.14 – taken from interview with doctor "a" and "b":

D: And, often we rely on, we don't have Xhosa communication and time constraints. We can't go into the family background, the social background, personally. The, the sort of mother's reaction to this.

The interviews of doctors in these interactions and at the research site thus exhibited consistency with findings of conversational analysis transcripts. This convergence between research trends and interview comments is thus felt to strengthen research results and dependability, and implies that these findings are not solely isolated to the four analysed transcripts.

ii. Caregivers:

For the purposes of these interviews caregivers will be referred to as "C" and interviewers as "I" in the following extracts.

Table 10: Caregiver Interviews from the Research Site:

Trend	**Evidence**
Communication breakdowns in multicultural medical interactions at research site	Extract 6.2.16 C: Sometimes it happens that I don't understand what she is saying…. Extract 6.2.17 C: You'd be hearing what he is saying but you would think this word I have never heard before

As with doctor interviews, caregiver interviews exhibited consistency with core trends observed in analysed transcripts. In particular it was observed that communication breakdowns within interactions were confirmed through comments made by patients observed from the research site and data set. This was a common trend noted across all interviews including those included in extracts 6.2.16 and 6.2.17 in table 10. Convergence was also noted between transcripts and interviews in terms of patient perceptions regarding communication efficacy and the degree of communication efficacy observed within transcripts. In particular it was noted that interactions where nonverbal

behaviours such as non-sequential head posturing were frequent, were those interactions where caregivers perceived breaks in communication. This can be seen in extract 6.2.18, where caregiver "a", confirms that she experienced difficulties with information transfer in this interaction. Caregiver "a" was frequently noted as demonstrating nonverbal behaviours of communication breakdown such as substitution gestures and non-sequential head posturing behaviour in analysed transcripts. Aspects related to this result trend and nonverbal behaviour patterning is therefore confirmed.

Extract 6.2.18 – taken from interview with caregiver from interaction "a":

I:Ke, khawundichaze intobana akukho ngxake oye wayifuman kule nto yoba ningtheth' uilwimi elinye?

Tell me, didn't you experience any problems since you are not speaking the same language?

C:Ewe, zibakhona iingxaki apho bendingamva

Yes, there were times when I had problems

Conversely interactions where such nonverbal behaviours were minimal or non-existent were those interactions where patients perceived communicative efficacy as being optimal. This is clearly seen in interaction "d" which displayed the highest number of gestural and eye gaze facilitative behaviours and the lowest number of communication breakdowns. This is evidenced in extract 6.2.18.

Extract 6.2.18 – taken from interview with caregiver from interaction "d":

I:Okay. Mamela ke, makhe sithethe ngonxibelelwano. Apha ufumene unxibelelwano olunjani kakhulu apha ke njongoba uqala uz' pha?

Okay. Listen. *let's talk about communication. What kind of communication did you receive*

C: I – like, ndic… Like, kurayiti, because ugqirha uye wandicacisela yonk' eny' into.

I – like, I think… Like, it's alright, because *the doctor explained everything to me.*

I: Okay. Niye navana kakuhle?

*Okay. Did you understan*d each *other well.*

M: Uhm (nods).

Yes (nods)."

Certain interviews and patient perceptions were also observed as confirming trends related to differences in cultural and social views of the disease and other life aspects. These interviews also identified the barriers, which these differences create in terms of conflicting attitudes and approaches to specific medical and personal problems. This point can be viewed in extract 6.2.19 and is articulated through the shaded comments made by the interviewer and confirmed by the caregiver. These comments indicate that language is not the only divide in the healthcare interaction but differences in opinion or

agendas affect the ability for patients and practitioners to share similar views regarding treatment considerations. This point was highlighted frequently in the analysed transcripts through general correlations between agendas, interactional dynamics and nonverbal behaviours, as well as through the relationship between coupling behaviours and the structure of the medical interview. The strength of research findings in this regard are therefore increased.

Extract 6.2.19 – taken from interview with caregiver in interaction "a":

I: Kukh'oogqirha obonayo uba bayazama ngoku bengaluthethi olu lwimi lwethu bengamaNgesi okanye bethetha is-Afrkaans ubabone umntu uyazama uba mawumve kodwa ubafumane abany'oogqirha hayi uba umntu uyathetha loo nto…

The are doctors that see that they are now trying to speak our language being white people or they are afrikaans speaking, you see that a person is trying his best for you to understand him,but you find the other doctors not that he is saying that…

C: Uyayithetha oko, ewe.

He talk and talks, yes

I: Ayisuba'akakhathali mhlayimbe ayisiso nje awumva, anivani, yaqonda.

Its not that he does not care its not the English only, you do not understand him, you don't understand each other, understand.

C: Ewe.

Yes.

I: Uyifumene njani loo nto? Ukh'uyifumane?

How have you find that? Do you ever experience it

C: Ndikhe ndiyifumane.

I do find sometimes.

6.2.1.2 Summary and Conclusion of Interviews.

While interviews conducted in February 2004 are not able to provide support to specific aspects of nonverbal behaviour analysis discussed in chapters 5 and 6, these interviews do support certain core trends identified in the interactions. These core trends were noted as having clear correlations with nonverbal behaviours analysed in the research transcripts and thus, it is felt, these interviews do provide support to specific research findings. Trends noted in research transcripts and identified in these interviews included:

- occurrence of communication breakdowns;
- practitioner awareness of the likelihood for communication breakdown;
- influences of culture on interactional dynamics; and
- the differences in participant agendas and perceptions in observed interactions and their relationship with interactional dynamics.

It is important to note that aspects related to nonverbal behaviours and critical moments of interaction were not able to be correlated with interview data. This was due to the fact that data was initially collected for the purpose of verbal analysis of communicative patterns within healthcare and not because research findings conflicted with interview content. Thus the focus of these interviews was limited to general aspects related to the communication experience within healthcare. It is also important to note that it was difficult for the researcher to include all caregiver and doctor interview comments within the triangulation process (most specifically interaction "c") as some of this data was poorly recorded and not sufficiently archived by members of the research team. Despite these points, the researcher feels that the overall convergence of interviews and core trends identified in research data supports fundamental assumptions related to intercultural communication within the multicultural HIV medical interaction. This theme convergence also lends support to the credibility, dependability and transferability of research results.

6.2.1..3. Results from Ethnographic Observations.

As with interviews, field notes and ethnographic analyses compiled by individual members of the research team, confirmed specific trends identified in research results. Thus aspects related to nonverbal behaviours were not specifically identified in ethnographic analyses. This was due to the fact that the focus of ethnographic data collection was to capture general aspects related to the communicative and healthcare

situation at the research site. No focus was thus placed on nonverbal behaviour patterns during the compilation of ethnographic field notes in February 2004.

Ethnographies compiled for the purposes of the Health Communication Research Project focused on establishing a generalised description of the healthcare setting and broad themes associated with it (Cilliers, 2005). Therefore ethnographies were compiled over a limited period of time and described global aspects and environmental themes at the research site as opposed to intimately documenting the lives and practices of specific individuals. This method which is not in keeping with orthodox ethnographic methods is appropriate and effective when time limitations exist and when the purpose of ethnographic observation is to confirm research themes (Curtise & White, 2005). It is vital however, when using such methods that the researcher remains aware of the fact that observations are somewhat broad and superficial.

For the purposes of this study the researcher used ethnographic field notes compiled from two independent studies focusing on the research site. Field notes used also varied in terms of time frame within which they were collated. Thus field notes extracted from Cilliers' (2005) study were compiled during the data collection process of this current project whilst field notes used from Schwartz (2004) were documents collated at an earlier data collection period at the research site. This use of two separate ethnographies from two differing time frames, the researcher felt, would enhance the triangulation process and strengthen supportive evidence of research findings. It was also felt that the incorporation of Schwartz's (2004) field notes would as with generalised participant

interviews, confirm researcher assumptions regarding the transferability of research results.

Field notes from Cilliers (2005) and Schwartz (2004) exhibit good correlation with trends discussed in the research results, as well as with one another. Because the ethnographies of Schwartz and Cilliers exhibited high levels of correlation with one another the accuracy and credibility of these field notes is felt to be valid. Certain trends identified in the analysed ethnographies confirmed specific findings in interview analyses and research results, and therefore provide further evidence as to the dependability of research findings.

In particular ethnographic field notes illustrate that the clinic environment where data was collected is characterised by time pressures where doctors and nurses are required to achieve specific objectives within a limited space of time. Extract 6.2.1 illustrates this point and the fact that health practitioners within this environment have specific objectives that encompass the provision of medical care to large numbers of patients in a limited time period. Ethnographic field notes thus support trends noted within research results and interviews related to set, pre-established agendas between participants and the tendency for health practitioners to be pre-occupied with medical considerations, goals and outcomes.

Extract 6.2.1. - taken from field notes compiled by Schwartz (2004, pp7):

"The doctor's stand in the doors and call out the patient's name. They do not wait for the patient, they start walking to their respective rooms….."

Extract 6.2.2 – taken from field notes compiled by Cilliers (2005, pp. 46):

"On the other hand, doctors and nurses seem to be working and moving at a high pace. Walking swiftly in the corridors to fetch patient folders or other documentation….."

Extracts 6.2.1 and 6.2.3 also confirm identified trends related to the asymmetrical, doctor-led nature of multicultural, HIV healthcare interactions in the South African medical context. Extract 6.2.3 in particular highlights the lack of eye gaze coupling on the part of the doctor observed within this specific medical interaction. It therefore not only supports statements regarding the traditional medical approach to health care used in these interactions but also provides evidence that supports findings regarding the nature of coupling behaviours and interpersonal interactions within the multicultural medical session. Dependability and credibility of nonverbal behaviour findings is thus highlighted.

Extract 6.2.3 – taken from field notes compiled by Schwartz (2004, pp.7):

"D1 is sitting on his chair prior to the patient entering the room. He doesn't look up nor greet even though the patient is looking at him. He is reading a folder and immediately starts the consultation"…

"D1 no longer makes eye contact and continuously looks down whilst communicating with mom. However, mom looks at D1 when answering his question…"

Ethnographic analyses also identify trends related to the cultural and linguistic barriers that exist in the multicultural treatment setting and effect successful communication transfer and interactional dynamics. This observation evidenced in extract 6.2.4 is a core trend of research findings that has also been highlighted in interview analyses.

Extract 6.2.4 – taken from field notes compiled by Cilliers (2005, pp.46):

"Every now and then a doctor makes his appearance to take a folder from the heap and calls out the name of the next patient. The doctor's pronounciations of isiXhosa patients' names are often incorrect and result in confusion amongst awaiting caregivers as to whom the doctor is calling. "

6.2.1.4 Summary and Conclusion of Ethnographic Analyses.

As with analysed interviews, although compiled ethnographies are limited in their description of nonverbal behaviours, they do confirm core interactional trends identified in analysed transcripts. These identified trends include:

- differences in participant agendas and the asymmetries of the multicultural healthcare interaction;
- the existence of language and cultural barriers within the treatment session; and
- the existence of communication breakdowns in these sessions.

It is important to note, however that although ethnographic findings did not focus on nonverbal behaviour patterning they did briefly illustrate and support nonverbal results related to coupling behaviours and their correlation with patient practitioner relations in treatment interactions. This suggests that nonverbal findings are both transferable and dependable.

The consistent findings of ethnographic analyses across different periods of time and amongst different health practitioners further suggest that identified trends are accurate and not isolated to the four analysed interactions of this study. These ethnographic observations therefore lend further support to researcher findings of the four analysed treatment interactions in terms of their credibility and dependability.

6..2.2 Inter-triangulation.

This section will now cross-compare the findings of this study with the conclusions of other health communication research studies conducted in the South African healthcare context over the past 7 years.

A comparison of the findings of this research project with other studies and papers in the University of Witwatersrand's Health Communication Project have yielded some interesting correlations.

In particular findings related to the communication barriers and breakdowns present in all four of the analysed interactions was confirmed through similar findings of South African based health communication studies. More specifically these studies identified that communication transfer within these interactions is at risk for disruption, and is frequently affected by specific facilitators and inhibitors in treatment interactions. (Penn, 2003; Smith, 2004, Sithole, 2004, Cilliers, 2005; Schwartz, 2004; Prince, 2004). This core trend identified in this and other studies, was noted as not being restricted to geographical location, illness or context and thus suggests that research results from this study are not only dependable but also exhibit transferability.

Theme convergence was also noted in relation to the identified influence of culture upon healthcare interactions and interactional dynamics. This point has been identified as being an influential factor within successful healthcare interactions and dynamics by

individuals such as Penn (2003) and Sithole (2004). Sithole (2004) further extended this observation to note that culture not only affects interactional dynamics but also has distinctive impacts on information transfer within treatment interactions. The researcher's assumptions regarding the influence of culture on the success and quality of the medical treatment interaction is thus supported.

The researcher's identification of the need and possible value for medical education programmes within the context of HIV treatment interactions has also been supported by the findings of various health communication studies. In particular studies such as Evans (2006) as well as Prince (2004) have confirmed the need and potential for communication skills training of medical practitioners in South African healthcare environments. Research results and findings from this study emphasise the need for communication skills training of health care professionals, and identifies the potential of certain analysed behaviours in facilitating such training programmes. A definite agreement between these findings and previous research papers is thus evident.

Result credibility and dependability are further highlighted through similarities in nonverbal findings observed between this study and the findings of Smith (2004). The value of nonverbal behaviours in describing interactional, attitudinal and communicative aspects of HIV vaccine trials was illustrated by Smith in 2004. This study as with Smith's have identified that nonverbal behaviours provide a unique, enhanced perspective with regards to interactional dynamics and communicative success that verbal behaviours are not always able to achieve. The existence of studies such as this, thus support researcher

findings regarding the value of nonverbal behaviours within the context of health communication and the correlations these behaviours share with certain interactional trends. The fact that the findings of Smith (2004) occurred within a separate research site and over a different time period further highlights that this study's nonverbal research findings do possess transferability within the context of South African healthcare.

It therefore becomes apparent that when cross-comparing research findings between this and previous research projects of its kind, shared trends exist. Demonstrated theme convergence thus has positive implications in terms of this study's rigour. The convergence of specific findings across a variety of locations, time frames and populations further implies that although this study was conducted on a limited data set and specific environment, certain findings have the potential to be applied across the broader South African healthcare context.

Chapter 7

Conclusion.

"The end must justify the means"

Mathew Prior

This chapter will now review the core findings of this study. These core findings will then be discussed in terms of their value for current and future research and clinical practice within national and international contexts. Following this, study strengths and limitations will be reviewed and recommendations in terms of the applications of these research findings in clinical and research contexts will be made. A final summary and conclusion with regards to research processes and findings will end the chapter and dissertation.

7.1 Core Findings of this Study.

The detailed analyses and interpretation of nonverbal communication between caregivers and health practitioners in HIV healthcare interactions have yielded interesting evidence pertaining to the following:

- distinct correlations between practitioner nonverbal behaviours and the quality of interactional dynamics and communicative efficacy exist;

- specific nonverbal behaviours fulfil set roles in terms of facilitating or indicating trends related to communicative transfer and interactional dynamics;
- critical "moments of collaboration" exist in all of the observed interactions. These interactional moments are pivotal in terms of these healthcare interactions as they demonstrate a change in participant roles and behaviours. Thus these interactional moments see participants interact on a more informal, personalised level, which fosters enhanced interactional and communicative dynamics. A core feature of all of these moments is participant focus on the child patient;
- practitioner awareness of communication efficacy and nonverbal use directly impact on interaction success;
- barriers to effective communication and interaction exist; and
- polyphonic transcription procedures are extremely effective in illustrating nonverbal behaviour patterns within the interactional context.

7.2. Value of this Study for Current and Future Research and Medical Practice.

This section will provide the key points in terms of this study's value for current and future medical practice and research, following which more detailed discussions of these points will be made.

Broadly this study is felt to be of value to current and future medical practice and research as it has:

- provided insight into certain areas of research where information has been lacking;
- confirmed assumptions regarding the occurrence of adverse interactional dynamics and communication breakdowns within these high-risk interactions and provided motivation for relevant changes to be made;
- identified nonverbal facilitators and inhibitors to successful medical interactions;
- provided motivation for medical education programmes;
- identified useful nonverbal guidelines into factors and content that should be considered in these programmes;
- demonstrated a potentially valuable method for nonverbal transcription; and
- highlighted the speech language pathologist's potential role in the context of South African health communication research.

Through nonverbal behaviour analyses this study has highlighted that although all healthcare practitioners possessed some level of awareness as to barriers to effective communication and interaction, the interactional and communicative process is at high risk for adverse outcomes (Smith, 2004; Penn, 2003; Delbene, 2003). In particular nonverbal behaviour analyses identified that levels of communicative transfer and quality of interactional dynamics varied widely across all sessions. Nonverbal analyses were also notes as correlating directly with interactional and communicative success. Findings related to the fact that all interactions, exhibited periods of negative interactional and communicative moments are of particular concern due to the influence these moments have on patient satisfaction levels, processing ability, retention of topic content; and

ability to identify with the doctor on a personal level (Meeuwesen et al., 2006; Friedland & Williams, 1997; Reimann et al., 2004). Research results thus raise concerns in terms of patient adherence to treatment regimes and overall treatment outcomes resulting from the observed medical interactions. (Butcher et al., 2001; Friedland & Soloway, 2000; Friedland & Williams, 1997). This research project thus confirms suspicions regarding the susceptibility for such interactions to be effected by barriers related to culture, society, illness and language and provides motivation for the implementation of a cohesive action plan that attempts to shape policy and develop medical education programmes at both institutional and national levels. This study thus has possible clinical benefits, which it is anticipated will prompt changes in current and future healthcare interactions.

The dissertation itself is also felt to have extended current studies available regarding nonverbal behaviour patterning in health communication contexts - an extremely sparse area of research (Mast, 2007; Burgoon, 2005). It has also provided insight into particular areas of health communication research, which have been identified through Epstein et al.'s (2005) model – summarised in figure 1 on page 31 - as lacking in information. More specifically figure 2 highlights that this study has provided further input into health communication factors which include patient and practitioner characteristics related to culture, language and doctor abilities to read and integrate patient needs within the healthcare interaction.

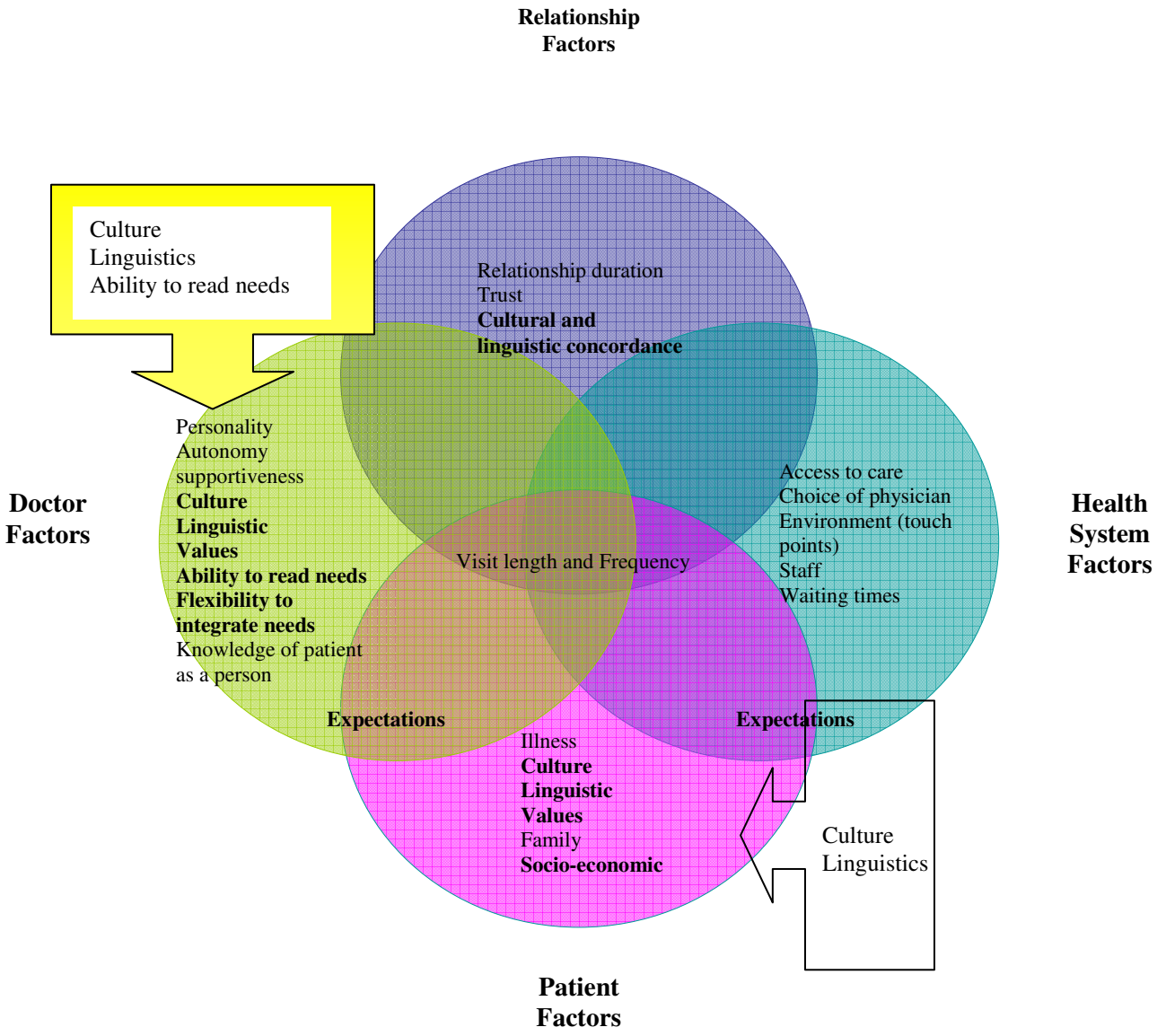


Figure 2: A Revised Model of the Influences Upon the Healthcare Interaction and which Research Areas this Study has Contributed to.

In particular this study has explored and described doctor-patient interactions within a multicultural and multilingual context therefore allowing for input into this sparse domain of health communication research to be achieved. Analysis of interaction "b", more specifically allowed for the factor of culture to be comprehensively described and

discussed - extending current knowledge into this complex research area. Nonverbal descriptions and analyses of the doctors' abilities to read and identify nonverbal behaviours (i.e. their awareness of nonverbal indicators of ineffective communicative transfer and interactional dynamics) and integrate these observations within the healthcare interaction have also allowed for research needs identified in Epstein et al.'s (2005) model to be addressed. This study has therefore met specific research needs whilst also providing motivation for further research into these specific domains of health communication (Epstein et al., 2005).

Study findings have also identified specific patterns of nonverbal behaviour which may be linked to facilitatory and inhibitory communicative and interactional patterns in medical interactions (Mast, 2007). In particular findings which have identified specific roles individual nonverbal behaviours possess in terms of communication transfer and interpersonal relations may prove useful in guiding content for proposed medical training programmes and guide lines for effective medical treatment sessions. Study findings have thus further confirmed assumptions regarding the value of nonverbal behaviour analysis in providing insight into the nature and challenges of multicultural and multilingual HIV medical interactions (Smith, 2004). It is therefore anticipated that this study will provide further motivation for future nonverbal behaviour research in the context of health communication whilst contributing to enhanced levels of clinical practice and training.

Interesting, novel findings regarding the positive effects of critical moments of interaction and the role of the child within these moments may also have valuable clinical

applications. These research findings are anticipated as being useful compliments to previously mentioned nonverbal findings and thus are anticipated as providing further contribution to standards of clinical practice and the nature of practitioner training programmes. The findings of this study thus appear to possess the potential to extend medical education programmes whilst also informing the development of national and institutional policy. The role of the child in fostering such "moments of collaboration" further suggests the possibility that the presence of the child patient has the potential to be used in these interactions to bridge gaps related to cultural and linguistic differences. The incorporation of the child into medical interaction dynamics it thus is anticipated may prove a useful strategy in fostering enhanced medical interactions and patient satisfaction levels and treatment outcomes. This study has thus made a unique finding, which may possess significant potential in the clinical treatment context.

The use of the polyphonic transcription method for nonverbal transcription and analysis has also proved fruitful. More specifically this method has been valuable in revealing nonverbal behaviour patterns and coupling behaviours. It has also been pivotal in identifying specific patterns and co-occurrences of behaviours which are temporally based, and thus has captured informational aspects which would otherwise have been lost if using conventional transcription systems (Briggs, 1993; Marshall, 2005). The transcription process of this study therefore has potential in offering future nonverbal behaviour researchers a new and effective means of nonverbal behaviour transcription. This research project has thus identified and illustrated a valuable transcription process

and provided motivation for further investigation into this method in future research studies.

Lastly, this study has illustrated the value and role of the language professional in the context of health communication. The researcher has illustrated through research findings and recommendations that language specialists with their extended knowledge of the processes of communication have a crucial role to play in intercultural contexts such as these. This study thus highlights the potential for the speech language pathologist to broaden his or her professional role in the context of health communication, education and research (Penn, 2004). This it is anticipated may have positive effects on health communication processes and the speech and language pathologist's professional scope of practice in Southern Africa.

7.3. Strengths and Limitations of the Study.

When reviewing the research process and its results, certain strengths and limitations of this study become evident. One such strength is that of research dependability and transferability. Although nonverbal behaviour observations were not always able to be confirmed through triangulation procedures, specific core trends were identified as being consistent amongst research results as well as data collected from the same research site and research findings from previous health communication projects focussing on differing geographical locations, populations and illnesses. This thus suggests good levels of dependability and transferability in terms of study design and indicates that the study

was able to achieve sufficient insight into analysed areas without compromising on result integrity (Damico & Simmons-Mackie, 2003).

Linked to this point is the use of polyphonic transcription and modified conversational analysis methods in this study. This is felt to be a strength of this research project as it fostered sufficient insight and detail of analysis (Curtise & White, 2005). Thus this methodological procedure allowed for detailed analyses of nonverbal behaviours and behaviours of symmetry, which have previously not been achieved in nonverbal behaviour patterning research, to be realised.

Some limitations were also noted in this study and are anticipated as providing guidance for future nonverbal health communication investigation. One such limitation relates to the imbalanced spread of nonverbal coupling behaviours, which were restricted by the asymmetrical nature of the medical interaction. This thus may have prevented the researcher from obtaining a broad insight into the aspect of nonverbal coupling behaviour. Although this previously mentioned point is a disadvantage to this study, it is felt that because the researcher's primary aim related to nonverbal description in the medical interaction, this point is not a significant limitation, but rather is a useful guide for future research into the area of coupling behaviour.

Coupled with this point is the fact that nonverbal constructs were only able to be analysed broadly in this interaction and thus subtle components related to individual behaviours may have been missed. This point was primarily related to the time limitations of this

project. Although this is a limitation of this study, it is felt that this limitation is acceptable as study objectives aimed for broad nonverbal description in the medical interaction. This limitation however does suggest that future research projects focus on individualised nonverbal behaviour aspects within a polyphonic transcription framework.

Lastly, the researcher feels that results were limited by the fact that nonverbal behaviours were not sufficiently described in previously compiled interview and ethnographic analyses. Although this was due to no fault of the researcher's and triangulation methods did evidence good levels of dependability in terms of this study's core trends; this point does suggest that result rigour would have been enhanced if nonverbal findings were confirmed through theme convergence. This point thus provides further guidance for future research probing this specific topic. It also implies that when qualitatively analysing nonverbal behaviour patterns, interview and ethnographic content of these studies should focus more specifically on nonverbal behaviours as well as verbal patterns to facilitate more robust and descriptive cross-comparisons of this communicative pattern.

7.4 Recommendations.

7.4.1. General Recommendations.

The findings of this study suggest that doctors should be more aware of and incorporate nonverbal behaviours through receptive and expressive formats into their treatment

approaches. Result findings regarding health practitioners' inherent awareness of nonverbal behaviour patterns suggest potential for medical education programmes to build upon and develop this knowledge and clinical skill successfully. Research results thus imply that professional awareness of nonverbal behaviours and their ability to use such patterns should be directly targeted as part of formalised teaching programmes at both tertiary teaching institutions as well as within healthcare organisations nationally.

It is recommended that training programmes incorporate core considerations identified through this study into their curricula. These core considerations include;

- nonverbal behaviours and how they link to communicative patterns and interactional dynamics;
- how to analyse nonverbal behaviour to effectively identify barriers to successful healthcare;
- how to modify personal nonverbal behaviours to foster a more effective healthcare interaction in terms of communication and interaction; and
- how to identify and foster moments of collaboration to enhance effective interactional dynamics and communicative transfer.

Professional training programmes it is felt should incorporate visual methods for analysis, teaching and assessment due to the visual nature of the skill wishing to be demonstrated and taught (Knapp, 1978:182). The use of multiple methods of teaching is also a vitally important consideration for such programmes, as the learning process requires material to

be transferred from one context to another. Thus the use of visual training methods combined with a variety of teaching experiences is pivotal if the processes of replication, application, interpretation and association are to be achieved in the teaching programme. Visual methods in particular allow for varied learning experiences through showcasing specific theoretical aspects and exposing practitioners to varied interactional caseloads. Visual media also foster self-evaluative approaches to training through allowing participants to record and self-evaluate behaviours and areas of weakness. This in turn allows for increased transfer of learning experiences (Redfern & Bartley, 2006).

It is also recommended that training programmes not be limited to isolated teaching experiences within university or continuing provisional development curricula. Rather training should be an ongoing process that employs continual monitoring mechanisms and input so that the efficacy of skill application and its maintenance can be monitored (Redfern & Bartley, 2006). Thus it is recommended that institutions establish ongoing assessment measures, which are able to identify areas of weakness for individual professionals and adapt training programmes accordingly to these. This will make professional training more meaningful, specific and effective thereby optimising treatment and training outcomes.

Although the implementation of education programmes that target specific communicative skills such as practitioner nonverbal behaviours appear to possess great potential, certain individuals may state that implementing such programmes possess challenges. In particular it may be argued that challenges related to mobilisation of

resources and presence of opportunities for the implementation of these programmes could outweigh benefits that have not yet been demonstrated. The existence of current medical education literature, however suggests that the implementation of practitioner training is achievable and research into the value of medical education demonstrates that it possesses definite benefits. According to Ammentorp, Sabroe, Kofoed and Mainz (2007) effective practitioner training which targets identified skills in a systematic and structured programme can have significant benefits on the quality of practitioner communication skills and levels of patient-centeredness observed within healthcare interactions. Studies which have explored the effectiveness of training programmes aiming to develop communication skills of radiation oncologists have identified that such programmes have not only enhanced practitioner skills in comparison to studied control groups, but have also had direct benefits on the quality of interactions and level of patient participation within these interactions (Timmermans, Van der Maazen, Spaendock, Leer & Kraaimaat, 2005). The clinical potential of medical education is therefore emphasised. Arguments related to barriers to effective implementation of such programmes also appear unfounded. Boese-O'Reilly (2007) states that although training the experienced professional is a challenge for medical education programmes due to limitations of time, opportunities for training do exist. These include postgraduate training forums, continuing professional development activities and seminars. It is therefore felt that recommendations related to practitioner training are appropriate and realisable.

Because training requirements necessitate large scale implementation at educational and state health levels it is further recommended that policies at national and institutional

levels be developed. These policies should aim to foster more effective patient-practitioner interactions through prescribing basic standards of healthcare that include core training requirements which encompass these communicative patterns.

7.4.2 Recommendations for Future Research.

In order to achieve broader research recommendations related to policy change. Political and financial support needs to be generated. This it is anticipated can be achieved through conducting further research into this topic and its core findings across a range of geographical locations, illness types, cultural and language groups, sample sizes and types of healthcare institutions. Through confirming commonalities and findings identified within this specific dissertation, it is believed that increased motivation and support regarding core recommendations will be generated and thus changes in clinical and training domains will be able to be more effectively realised.

Further research is also required in terms of examining coupling behaviours across differing types of interactional contexts. This it is felt is required so that understanding of this nonverbal phenomenon can be enhanced. It is also recommended that future nonverbal behaviour analysis and description incorporate the use of polyphonic transcription methods to validate its usability for this specific communicative construct and extend current nonverbal findings and insight further.

Finally, future studies, the researcher believes, should aim to focus on fewer if not single nonverbal behaviour constructs so that such behaviours can be rigorously analysed and described in terms of subtle, distinguishing elements such as eye gaze type and degree of directionality. This specific type of research it is felt will enhance current understanding of these behaviours and it is anticipated will in turn extend recommendations regarding practical application and use of nonverbal communicative patterns.

7.4 Conclusion.

This study aimed to investigate and describe cross-cultural HIV treatment interactions from a nonverbal perspective. More specifically this study wished to identify the role of nonverbal behaviours in the multicultural and multilingual interaction and whether barriers to effective interaction (such as culture, language and experience) exist in these medical contexts.

Through the use of polyphonic transcription this study described and analysed nonverbal behaviours. The findings of these nonverbal behaviour analyses provided insight into the nature and patterning of such behaviours within the medical interaction (Arygle, 1972:243; Mehrabian, 2007:1). In particular nonverbal analyses identified correlations between nonverbal behaviour patterning and interactional trends related to communication and interactional dynamics. Specific patterns of nonverbal behaviour were also identified as fulfilling certain roles in the communicative interaction (Argyle, 1972:252-255). Thus nonverbal behaviours were identified as possessing the potential to

facilitate interactions and inform health practitioners as to the efficacy of communicative encounters (Mast, 2007). This study further highlighted that this potential of nonverbal behaviours to facilitate effective healthcare interactions, is closely linked to practitioner awareness of nonverbal patterning and is still predominantly limited amongst treatment sessions.

This study also yielded unique findings related to the existence of critical interactional moments. These moments were described and defined in this research project and were demonstrated as facilitating patient-centred interactions and thus enhanced interactional dynamics within the healthcare context. This and the previously mentioned points pertaining to nonverbal behaviour proved useful in the generation of guidelines for medical training programmes and are anticipated as having positive implications for clinical practice. Through its comprehensive analysis of nonverbal behaviours using polyphonic transcription methods this study has also demonstrated the potential benefits of this transcription system within the context of nonverbal behaviour research and provided future researchers with more choice in terms of methods for nonverbal behaviour analysis.

Most importantly however, this study has found evidence to suggest that HIV healthcare interactions are still at risk for reduced levels of patient satisfaction as well as poor short and long term prognostic outcomes (Penn, 2003; Penn, 2007; Delbene, 2003; Friedland & Soloway, 2001). Evidenced through the correlations between nonverbal behaviour patterns, communicative transfer and interactional dynamics, this study has identified that

communication breakdowns and adverse interactional dynamics still exist in the multicultural HIV interaction (Smith, 2004). Research findings suggest that these adverse interactional moments are influenced by factors related to differences in language, culture and experience and are frequently articulated through nonverbal behaviours and differences in agendas between participants (Helman, 1997:101; Penn, 2003; Delbene, 2003). This study thus confirms researcher assumptions regarding the vulnerability of the HIV multicultural interaction and the need to alter healthcare practitioner approaches to these interactions through changes in policy and medical training methods at both national and institutional levels.

Through the use of triangulation procedures in the form of ethnographic analyses, interviews and cross comparisons of results with core findings of other South African health communication projects; this study was able to demonstrate dependability and transferability (Ammenswerth et al., 2003). These findings thus support the rigour of this study's methodology as well as the credibility of research results. Coupled with this point is the fact that due to the transferability of research results, these findings and their potential implications and benefits are anticipated as having applicability to differing populations, illnesses and geographical locations.

The results and methodology of this study have thus demonstrated that this project has achieved its desired objectives through sound research methods, which have credibility and applicability in clinical and research contexts.

Arthur Koetsler once said “The principal mark of genius is not perfection but originality; the opening of new frontiers” Through this study’s;

- nonverbal descriptions in a health communication framework;
- exploration and description of polyphonic transcription methods as a method for nonverbal behaviour recording; and
- identification, definition and description of critical moments of interaction namely “moments of collaboration”.

it is hoped that a unique perspective on the HIV multicultural medical interaction has been provided. It is also hoped that through the results and findings of this study a greater emphasis will be placed on the value of nonverbal behaviour research in the context of South African healthcare. Lastly, it is hoped that through the integration of research findings and implementation of recommendations made by this study meaningful real-life benefits for the participants involved and future patients in these healthcare environments will be achieved.