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

Smith, Samantha Meghan Coralie

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Chapter 5

Results.

This chapter will discuss the four interactions analysed using a modified form of conversational analysis, which is combined with polyphonic transcription methods. Each interaction will be analysed in terms of the five[1] nonverbal aspects selected for this study. Observations regarding nonverbal behaviours will be described in detail at the beginning of each section following which a tabulated summary of nonverbal observations will be provided. General observations regarding analyses of coupling behaviours for all interactions will then be discussed at the end of this section

5.1 Analysis of Transcripts.

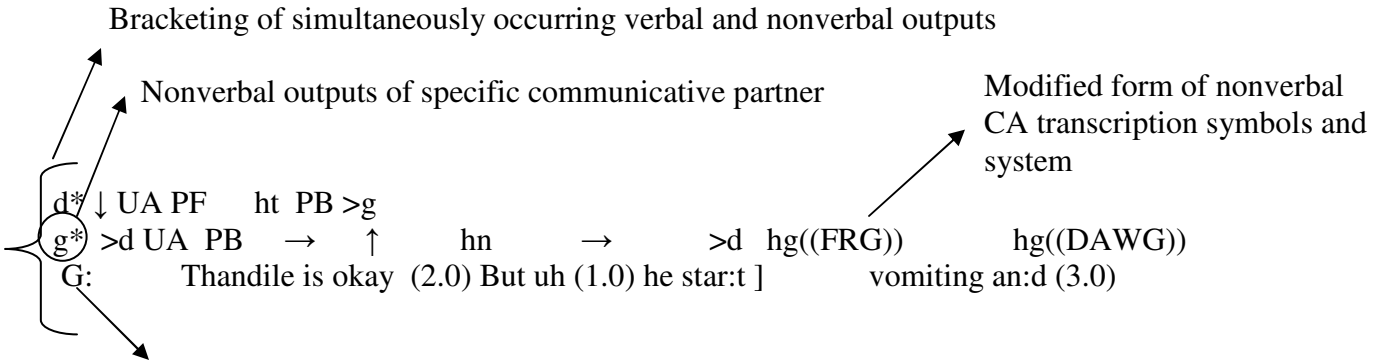
How to read the Transcription[2] Extract.

When reading the results section below it is important to understand specific transcription notation so that research results and transcript extracts are able to be comprehensively understood. The points to keep in mind include (Please refer to the annotated diagram included on pg 100 to enhance descriptions of transcription notation and layout):

[1]Please note analyses of nonverbal aspects are divided into four sections with body posture observations being incorporated into all four sections

[2]Please note that line numbers within result extracts correspond to original polyphonic transcripts and not abbreviated transcripts as used within the results section.

- Each portion of verbal output corresponds to a nonverbal output through the use of the same symbolic label.
- Nonverbal outputs are transcribed simultaneously for both communicative parties with one member being superimposed on another.
- One set of verbal and nonverbal outputs occurring simultaneously in real time is grouped with bracketing.
- Where nonverbal notation is seen simultaneously for both communicative parties, it is indicative of a simultaneous co-occurrence of behaviours within real time in the transcript.
- It is important to note that each extract begins with indications as to the nonverbal behaviour patterns occurring at the onset of each extract, following which changes within these behaviours are indicated through their respective symbolic representations.
- A key detailing all transcript abbreviations is available in appendix C of this dissertation.
- It must be noted that due to the condensed nature of this transcription, certain key temporal aspects such as duration of behaviour and simultaneous occurring behaviours are not as clearly visualised. For an example of such phenomena and how they were analysed in terms of original polyphonic transcripts please refer to appendix A of this thesis.



INTERACTION "A".

A dyad between doctor "a" (d) and caregiver "a" (g).

As summarised in table 1 and 2 (pg. 78, 79):

- Doctor "a" was a non-specialist, English-speaking practitioner who had been working at the research site for two weeks pre-data collection.
- Caregiver "a" was a 49 year old grandmother living in Bonteheuwel at the time of data collection.

1. Gestural behaviours within the session.

As is highlighted in table 3 and the interaction's summary, it became evident within the interaction that both parties were aware of and attempted to bypass communication

barriers through using specific gestural mechanisms to facilitate more effective communicative transfer. The gestural mechanisms used within this interaction consisted of set opaque gestures based on this specific medical context. Gestures also consisted of individualised gestures, which were perceived as being transparent in nature by either communicative party member in the interaction. This can be seen clearly in extracts A.1.1 and A.1.2 respectively. As is seen in extract A.1.1, opaque gestural patterns were established by a specific communicative partner in the interaction and were consistently integrated by both communicative partners when referring to specific terminology.

Extract A.1.1 – Lines 1 - 3

1
d*UA PF ↓ ht PB >g
g* UA PB >d → ↑ hn → >d hg((FRG)) hg((DAWG))
G: Thandile is okay (2.0) But uh (1.0) he star:t] vomiting an:d (3.0)

2
d*
g*
D: dia[rrhoea?

3
d*
g*
G: [diarrhoea

Extract A.1.2 – Lines 122 - 124

122
d* UA PB >g hg((RFloW)) hg((HaPoDoW))
g* UA PB >d hn hn
D: – whenever she needs it… we will give you today by the pharmacy you can get, as well as some

123
d* hg((URW)) hg((DAWG)) hg((DAWG))
g* hn hn hnhn
D: powder that you can mix with the water for her to drink while she's having the diarrhoea

124
d*
g* hnhnhn
G: Alright

The initiator of these gestural patterns was both patient and practitioner; however through transcribing, observing and documenting this behaviour it became apparent that the nature of gestural implementation was different. In the case of the patient, the implementation of these shared gestural patterns appeared to coincide with patient difficulties in terms of the English language. This specific point is clearly evident within extract A.1.1 where the duration of pause and eye gaze patterning combined with the patient's gesture suggests a "word finding" difficulty related to language difference (Koole, 2004). As discussed in table 3 these behaviours often co-occurred with gestural patterns which either substituted the caregiver's use of verbal terminology - as is seen in extract A.1. 3 or preceded it - seen in extract A.1.4.

Extract A.1.3 – Lines 1 - 3

1
d* UA PF ↓ ht PB >g
g* UA PB >d → ↑ hn → >d hg((FRG)) hg((DAWG))
G: Thandile is okay (2.0) But uh (1.0) he star:t] vomiting an:d (3.0)

2
d*
g*
D: dia[rrhoea?

3
d*
g*
G: [diarrhoea

Extract A.1.4 – Lines 12 - 13

12

d*UA PB >g hg((FRG))
g*UA PB >d ←
D: She still vomiting?

13

d*>g
g*← hshs ↓ >d hg((DAWG))
G: No, but the stomach is still (2.0) running –

The doctor's use of these gestures; however appeared to co-occur with an increase in verbal attempts aimed at improving information transfer. Thus as is seen in table 3, the doctor's use of gestures within this interaction was frequently supplementary to verbal output. This is seen in extract A.1.5. The doctor's use of gesture combined with his immediate change of terminology from using "ICU" to "hospital" – provides insight into his perceptions of the caregiver's English proficiency. This thus confirms researcher assumptions regarding the doctor's purpose for gesture implementation within this context. Observations were also made regarding the doctor's use of opaque gestural systems – these gestures also appeared to supplement discussed terminology as opposed to substituting or preceding it. This point can be seen in extract A.1.6.

Extract A.1.5 – Lines 66 - 70

66

d*>ch UA >g hg((HaPo))
g*>ch UA PB >d
D: Has she ever slept in ICU- been in hospital for anything?

67

d*
g* hs
G: No

68
d*
g*
D: She's never slept in for anything..

69
d*
g* ↑ hg((HaCoFa)) → hg((DAWG))
G: ja.. last year I think, I think last year for, for diarrhoea

70
d* >g hg((HaPo))
g*
D: Where? Here

Extract A.1.6 – Lines 122 - 124

122
d* UA PB >g hg((RFloW)) hg((HaPoDoW))
g* UA PB >d hn hn
D: – whenever she needs it… we will give you today by the pharmacy you can get, as well as some

123
d* hg((URW)) hg((DAWG)) hg((DAWG))
g* hn hn hnhn
D: powder that you can mix with the water for her to drink while she's having the diarrhoea

124
d*
g* hnhnhn
G: Alright

As is evident in extracts A.1.7 and A.1.8, it is also apparent that whenever opaque gestural symbols were used within the communicative interaction, sequential head nod - behaviour as well as coherency of topic turns and accuracy of communicative partner responses increased.

Extract A.1.7 – Lines 1 - 3

1
d* UA PF ↓ ht PB >g
g* UA PB >d → ↑ hn → >d hg((FRG)) hg((DAWG))
G: Thandile is okay (2.0) But uh (1.0) he star:t] vomiting an:d (3.0)

2
d*
g*
D: dia[rrhoea?

3
d*
g*
G: [diarrhoea

Extract A.1.8 – Lines 122 - 124

122
d* UA PB >g hg((RFloW)) hg((HaPoDoW))
g* UA PB >d hn hn
D: – whenever she needs it… we will give you today by the pharmacy you can get, as well as some

123
d* hg((URW)) hg((DAWG)) hg((DAWG))
g* hn hn hnhn
D: powder that you can mix with the water for her to drink while she's having the diarrhoea

124
d*
g* hnhnhn
G: Alright

As highlighted in table 3, gestures within interaction "a" also consisted of a combination of co-speech gestures (as is seen in extract A.1.9), and act gestures (seen in extract A.1.10). Co-speech gestures were noted as being more frequent within the treatment session in comparison to act gestures.

Extract A.1.9 – Lines 17 - 19

17
d* UA PB↓
g* UA PB ↓ >d hg((HaPoDo)) hn
G: (3.0) once

18
d*
g*
D: One [time

19
d*
g* hn
G: [this morning, ja]

Extract A1.10 – 122 - 124

122
d* >g UA PB hg((RFloW)) hg((HaPoDoW))
g*>d UA PB hn hn
D: – whenever she needs it… we will give you today by the pharmacy you can get, as well as some

123
d* hg((URW)) hg((DAWG)) hg((DAWG))
g* hn hn hnhn
D: powder that you can mix with the water for her to drink while she's having the diarrhoea

124
d*
g* hnhnhn
G: Alright

Patterns of the frequency and duration of gestural behaviours on the part of the caregiver and doctor were also noted. Table 3 highlights that the frequency and duration of the caregiver's gestural patterns were increased when discussing topics that appeared to be of importance to her personal life situation. This increase in gesture coincided with increased topic maintenance, forward body posturing and open body language on the part of the caregiver. These points are evident in A1.11 and A1.12.

Extract A.1.11 – Lines 47 – 49

47
d* UAPB↓
g* UAPB>d
D: (.) You charring 2 days a week

48
d*
g*PF St hg((RHaPo)) hg((DHaPoWU)) hg((ArPeDo))
G: I work before but now since my daughter passed away, I don't work two days before I tried to go home

49
d*
g* >d PB ↓ hg((HaDoCo))
G: but look after that [sighs] ba (.)by….

Extract A.1.12 – Lines 106 - 109

106
d*UA ↓ PB hg((DoPo))
g*UA ↓ PF
D: Let me see, I can write it there even. If you ever run out you should be able to get there

107
d*
g* >d hshshshs
G: And must try to write down and tell the sisters as they sometimes say no,no,no,no there's no medicine

108
d*
g* hn hg((HaPoDoA))
G: haven't got no medicine. You must tell him tell them must help

109
d*
g* hg((HaPoA))
G: give (2s) bactrim, you know

The caregiver's frequency and duration of gesture decreased significantly when topics discussed within the interaction were of a sensitive nature to the caregiver. This is evident in extracts A.1.13 and A.1.14. This change in gesture coincided with brisk head nod and head shake behaviour, backward body posturing and reduced eye contact

behaviours. When gesture did occur in these situations they consisted of gestures suggestive of negative affect and included caregiver hand to face contact behaviours, clasping of hands, hand flicking behaviour and self grooming behaviours such as the caregiver rubbing her temples, covering her eyes or rubbing her face (Argyle, 1972).

Extract A.1.13 – Lines 49 - 52

49
d*UA PB ↓ >g →
g*UA PB hg((HaWr)) ↓ >d
D: (60s) okay and uh, are you getting a grant or….

50
d*
g* ← hn ↑
G: (2.0) it's only R160

51
d*
g* → >d
D:R160

52
d*
g* ←
G: mmm...

Extract A.1.14 – Lines 45 - 46

45
d*UA PB ↓
g*UA PB ↓ hg((HaCoFa))
D: You not working hey?

46
d*
g*→ >d hnBr hg((HaFl)) ↓
G: (3.0) 2 days. (2.0) ◦char◦

In comparison to the caregiver, the doctor within the interaction exhibited significantly fewer gestural behaviours during the treatment session. In particular the doctor's gestural behaviour use was confined to discussing treatment aspects related to the child as well as aiming to improve information transfer at moments of communication breakdown. As is evident in extract A.1.15 this nonverbal behaviour coincided with an increase in eye contact behaviour on the part of the doctor and improved sequential head nod behaviour on behalf of the patient. Extract A.1.15 also illustrates that sequential head posturing behaviour occurred most frequently when co-speech as opposed to act gestures were used in doctor descriptions. This point was observed throughout the interaction.

Extract A.1.15 Lines 122-126

122
d* UA PB >g hg((RFloW)) hg((HaPoDoW))
g* UA PB >d hn hn
D: – whenever she needs it… we will give you today by the pharmacy you can get, as well as some

123
d* hg((URW)) hg((DAWG)) hg((DAWG))
g* hn hn hnhn
D: powder that you can mix with the water for her to drink while she's having the diarrhoea

124
d*
g* hnhnhn
G: Alright

125
d* hg((HaWUDoA))
g*
D: But make sure she drinks lots of water okay?

126
d*
g* hn
G: okay

2. Head posturing behaviour:

Extracts A.2.1 and A.2.2 illustrate that caregiver head nod and head shake behaviours occurred consistently within the interaction and appeared to immediately follow questions and comments made by the doctor during the medical session. These head posturing behaviours were observed as occurring in response to open and close ended questions. Thus certain head posturing behaviours were observed as being sequential in nature.

Extract A.2.1 – Lines 68 - 70

68
d* UA PB >g ↓
g* UA PB ↑ hg((HaCoFa)) ↓ ← hg((DAWG))
G: ja..last year I think, I think last year for, for diarrhoea .

69
d*
g* >d
D: Where? Here

70
d*
g* hn
G: Ja redcross

Extract A.2.2 – Lines 118 - 124

118
d* UA PB ↓ >g
g* UA PB ↓ >d
D: Okay, I have written here that they must please provide the bactrim and the vitamins

119
d* ↓
g* **hn**
G: Ja

120
d* >g hg((HaRoA)) ((HaRoA))
g*
D: as requi[red

121
d* ↓
g* hg((HaRoA))
G: [uired

122
d* >g hg((PoDoW))
g*
D: – whenever she needs it… we will give you today by the pharmacy you can get, as well as some

123
d* hg((URW)) hg((DAWG)) hg((DAWG))
g* hn hn hnhn
D: powder that you can mix with the water for her to drink while she's having the diarrhoea

124
d*
g* hnhnhn
G: Alright

Caregiver head nod behaviours, as is illustrated in table 3, were noted as differing considerably in degree of head nod i.e. whether it was an emphatic or slight head nod as well as in terms of the duration of the head movement i.e. whether the head nod was brisk or consisted of multiple head nods or head shakes. In particular emphatic head movements as well as multiple head posturing behaviours occurred when topics being discussed appeared to meet the caregiver's personal priorities and needs. This can be seen in extract A.2.3. These head posturing behaviours were also noted as co-occurring with forward body-posturing, increases in caregiver topic initiation, increases in caregiver topic turn duration as well as increases in frequency of gesture.

Extract A.2.3 – Lines 105- 113

105
d*UA PB ↓ hg((DoPo))
g*UA PB ↓ PF
D: Let me see, I can write it there even. If you ever run out you should be able to get there

106
d*
g* >d hshshshs
G: And must try to write down and tell the sisters as they sometimes say no,no,no,no there's no medicine

107
d*
g* hn hg((HaPoDoA))
G: haven't got no medicine. You must tell him tell them must help

108
d*
g* hg((HaPoA))
G: give (2s) bactrim, you know

109
d*
g*
D: Ja, they should know but you see, it's not written here anyway, where's a space, here let me write here

110
d*
g*>d hnhn
G: Ja, ja

111
d* >g
g*
D: I am going to write on here the child has got HIV

112
d*
g*
D: Okay, you happy with that?

113
d*
g* **hn**
G:Yes I am happy

Reductions in caregiver head movement were also evident within interaction "a". In particular it was noted that smaller head posturing behaviours and brisk head nod and

head shake behaviours seemed to occur when topics under discussion were of a sensitive nature to that of the caregiver; this can be seen in extract A.2.4 and A.2.5. Brisk head posture behaviours also co-occurred with reduced caregiver eye gaze, brisk caregiver gestural movements such as hand flicking and reduced intensity of speech on the part of both communicative parties.

Extract A.2.4 – Lines 40 - 43

40
d*UA PB >g PF
g* UA PB →
D: Okay …um… you – her mommy died, ◦when did she die◦

41
d*
g* → >d hg((HaCoFa)) ←
G: (4.0) ◦2003…she died.◦

42
d* >g
g*
D: Are you looking after her full time?

43
d*
g* >d *hn*BR hg((HaFlCo)) ↓
G: - ◦yes ◦

Extract A.2.5 – Lines 74-75

74
d*UA PB ↓ >g ↓ >g
g*UA PB ← hg((HaCoFa)) >d
D: She's drinking well hey? (2s) ….you said….sh-sh-sh-she had something to drink this morning?

75
d*
g*← *hs* ↓
G: ◦no, water…◦

Caregiver head posturing behaviours were also noted as being non-sequentially ordered within the communicative interaction as is seen in extract A.2.6 and A.2.7 – a point also noted in table 3. Certain observed non-sequentially ordered head posturing behaviours as is seen in A.2.6 co-occurred with nonverbal and verbal patterns that included; movements forward in caregiver body posture, increased caregiver eye gaze behaviour, increased pause time during the caregiver's reply and doctor repetition of specific terminology. Other non-sequential head posturing behaviours as seen in extract A.2.7. co-occurred with incongruent verbal responses made be the caregiver. These observed non-sequential head posturing behaviours and co-occurring verbal and nonverbal behaviours are thus all suggestive of ineffective levels of communicative transfer (Koole, 2004).

Extract A.2.6 – Lines 37 - 40

37
d*UA PB >g ↓
g*UA PB ↓
D: Okay, what were you worried about? The weight hey?

38
d*
g* PF >d
G: (4.0) Weight?

39
d* hg((HaRoA))
g* *hs*
D: You were worried about getting the weight. (1.0) She gave you some ….extra stuff to add to her

40
d*
g*
D:milk to feed [phone rings]

Extract A.2.7 – Lines 30 - 32

30
d*UA PB >g ↓
g*UA PB >d ↓
G: - not bad, not bad coughing

31
d*
g*
D: Okay, (1.0) ummm (30s) How's the skin, I see she went to - she had problems with her skin in the past

32
d*
g* hs
G: Skin is okay

As is mentioned in table 3, doctor head posturing behaviours within the interaction were observed as being sparse, and primarily limited to being sequential in nature.

3. Eye gaze behaviours.

In the early stages of the communicative interaction, the caregiver avoided eye gaze with the doctor during general discussions. This specific eye gaze behaviour corresponded with very rigid and closed postural behaviours on the part of the caregiver as is seen in extract A.3.1. Observations were also made regarding the lack of eye contact on the part of the doctor, which corresponded with reduced caregiver eye contact behaviours as is seen in extract A.3.2.

Extract A.3.1 – Lines 1-3

1
d*↓ UA PF ht PB >g
g* >d UA PB → ↑ hn → >d hg((FRG)) hg((DAWG))
G: Thandile is okay (2.0) But uh (1.0) he star:t] vomiting an:d (3.0)

2
d*
g*
D: dia[rrhoea?

3
d*
g*
G: [diarrhoea

Extract A.3.2 – Lines 30 – 32

30
d*UA PB >g ↓
g*UA PB >d ↓
G: - not bad, not bad coughing

31
d*
g*
D: Okay, (1.0) ummm (30s) How's the skin, I see she went to - she had problems with her skin in the past

32
d*
g* hs
G: Skin is okay

As the doctor increased more interactive eye contact and verbal behaviours within the communicative interaction, patient eye contact improved, body posturing relaxed and self-directed movements were reduced. This can be seen in extract A.3.3. It was noted that doctor eye gaze behaviours improved slightly as the session progressed; this co-occurred with an increase in the caregiver's eye contact behaviours. However after

certain incidents interrupted the flow of conversation within the interaction e.g. the doctor answering the phone and having a conversation, so the caregiver's eye contact behaviours reduced.

Extract A.3.3 – Lines 57 - 62

57
d*UA PB ↓ >g PF
g*UA PB ↓
D: (30s) okay, umm …. she's now how o-, she's two years now? Two almost three years….

58
d*
g*>d hg((HaPo))
G: Two years seven months just now.

59
d* PB
g*
D: mmm …She's talking nicely?

60
d*
g*A hn
G: ja

61
d*
g*
D: clever?

62
d*
g*
G: ja clever, very clever !

Specific eye contact behavioural patterns were also noted in relation to the sensitivity of the topic being discussed and its emotional connotations for the patient. As is highlighted in table 3, it was noted that when the doctor discussed specific topics that were of a highly sensitive nature to the caregiver, eye contact behaviours with the doctor were substantially reduced. These reduced eye contact behaviours also co-occurred with

reduced intensity of speech and increased self-directed movements such as rubbing of the face or clasping and wringing of the hands. This can be seen in extracts A.3.4 and A.3.5.

Extract A.3.4 – Lines 40 - 41

40
d*UA PB ↓ >g PF
g* UA PB →
D: Okay …um… you – her mommy died, ◦when did she die◦

41
d*
g* → >d hg((HaCoFa)) ←
G: (4.0) ◦2003…she died.◦

Extract A.3.5 – Lines 49 – 52

49
d*UA PB ↓ >g →
g*UA PB hg((HaWr)) ↓ >d
D: (60s) okay and uh, are you getting a grant or….

50
d*
g* ← hn ↑
G: (2.0) it's only R160

51
d*
g* → >d
D:R160

52
d*
g* ←
G: mmm...

Table 3 and extract A.3.6 highlight that definite eye gaze patterns occurred when topics that were of importance to the caregiver and her personal needs were discussed. Thus it was noticed that the caregiver increased eye gaze, forward body posturing and verbal

behaviour patterns at these specific instances in the transcript. It was also noted that she attempted to maintain eye gaze with the doctor at these specific time points within the interaction. These eye gaze behaviour patterns were noticeably relinquished by the caregiver when nonverbal and verbal behaviours on the part of the doctor did not reciprocate in this regard. This lack of reciprocity on the part of the doctor also appeared to influence the caregiver's verbal interactions, specific postural behaviours and self-directed movements negatively. This can be seen in extract A.3.6.

Extract A.3.6 – Lines 46 - 48

46
d* UA PB↓
g* UA PB >d
D: (.) You charring 2 days a week

47
d*
g*PF St hg((RHaPo)) hg((DHaPoWU)) hg((ArPeDo))
G: I work before but now since my daughter passed away, I don't work two days before I tried to go home

48
d*
g* >d PB ↓ hg((HaDoCo))
G: but look after that [sighs] ba (.)by….

Increased caregiver eye gaze behaviours were also noted at time points in the interaction where communicative transfer appeared inefficient. These eye gaze behaviours were noted as frequently co-occurring with forward caregiver body posturing, non-sequential head posturing behaviours and increased pause times during caregiver responses. This point is evidenced in extract A.3.7 and illustrated in table3.

Extract A.3.7 – Lines 37 - 40

37
d*UA PB >g ↓
g*UA PB ↓
D: Okay, what were you worried about? The weight hey?

38
d*
g* PF >d
G: (4.0) Weight?

39
d* hg((HaRoA))
g* *hs*
D: You were worried about getting the weight. (1.0) She gave you some ….extra stuff to add to her

40
d*
g*
D:milk to feed [phone rings]

Observations were made within the interaction that the doctor initiated and maintained eye contact behaviours far less frequently than the caregiver and at intermittent intervals within the transcript. These intervals for eye contact maintenance appeared to coincide with conversational topics related to the nature of the child's disease and specific information related to treatment. These points can be viewed in table 3.

4. Facial expression behaviours.

As identified in table 3, limited changes in facial expression on the part of the caregiver and the doctor were noted during the session. In particular it was observed that the caregiver and doctor were both inanimate in terms of facial expression for the majority of the session. Positive changes in the animation of the caregiver's facial expression however were observed when discussions in the session covered more relaxed topics

related to the child and her daily activities and capabilities. This is evident in extract A.4.1. These changes in caregiver facial expression were observed as co-occurring with doctor changes in facial animation.

Extract A.4.1 – Lines 57 - 62

57
d*UA PB ↓ >g PF
g*UA PB ↓
D: (30s) okay, umm …. she's now how o-, she's two years now? Two almost three years….

58
d*
g*>d hg((HaPo))
G: Two years seven months just now.

59
d*
g*
D: mmm …She's talking nicely?

60
d*
g*A hn
G: ja

61
d* A
g*
D: clever?

62
d*
g*
G: ja clever, very clever !

Increases in the animation of the caregiver's facial expression were also noted at time points within the interaction when the doctor and caregiver discussed topics that were of perceived importance to her. These facial expression behaviours appeared to co-occur with increases in forward body posture as well as duration and degree of patient head posturing behaviours. This can be seen in extract A.4.2.

Extract A.4.2 – Lines 91 - 113

91
d*UA PB ↓
g*UA PF >d
D: mmm, um where do you normally get the bactrim from? (2s) When it's finished?

92
d*
g*PB →
G: it finished cos last, last year it gave me two bottles and now its finished now *hs*

93
d* >g
g*
D: When did it finish?

94
d*
g* hg((HaCo)) hs hg((HaFl)) ↓
G: in the (2s) January

95
d*>g
g*↓ hnBr >d
D: (1s) January? It's fine I will give it to you today. It's just always be on it she should never run out. A

96
d*
g*
G: [ja because I haven't got nothing now]

….[A bit later]….

105
d*UA PB ↓ hg((DoPo))
g*UA PB ↓ PF
D: Let me see, I can write it there even. If you ever run out you should be able to get there

106
d*
g* >d hshshshs
G: And must try to write down and tell the sisters as they sometimes say no,no,no,no there's no medicine

107
d*
g* hn hg((HaPoDoA))
G: haven't got no medicine. You must tell him tell them must help

108
d*
g* hg((HaPoA))
G: give (2s) bactrim, you know

109
d*
g*
D: Ja, they should know but you see, it's not written here anyway, where's a space, here let me write here

110
d*
g*>d hnhn
G: Ja, ja

111
d* >g
g*
D: I am going to write on here the child has got HIV

112
d*
g*
D: Okay, you happy with that?

113
d*
g* **hn**
G:Yes I am happy

Table 3. A Summary of Nonverbal Features Observed within Dyad "A".

A summary table of the nonverbal features discussed will now be included below. Similar summary tables will be included for each analysed interaction and will follow analysed data for corresponding interactions throughout this dissertation. Emboldened text will be used in all of the proceeding summary tables to denote the fact that an observed behaviour was unique to its corresponding interaction.

	Features observed
Gestural Behaviours	**-**caregiver implemented supplementary and substitution gestures -doctor implemented supplementary

	gestures -opaque gestures implemented by doctor and caregiver occasionally within transcript -occasional co-speech gestures with links to semantic concepts used by doctor and caregiver -increases in gesture by caregiver when topic of interest for caregiver discussed -decreases in gesture when topics of sensitivity discussed -self grooming and body contact behaviours occurred when topics of sensitivity discussed
Head Posturing	-sequential head posturing on part of caregiver observed -non-sequential head posturing observed -emphatic head posturing observed when topics of interest discussed -increased frequency of caregiver head posturing when topics of interest discussed -reduced degree of head posturing when sensitive topics discussed -brisk head posturing when topics of a sensitive nature discussed -minimal doctor head posturing observed
Body Posture	-Forward caregiver body posture when topics of caregiver's perceived importance discussed -Forward caregiver body posture observed when "moments of collaboration" occurred. -Backward caregiver body posture when topics of sensitivity discussed -Forward caregiver body posture when moments of ineffective communicative transfer
Eye gaze	-increased eye gaze behaviour in response to doctor eye gaze behaviours -reduced eye contact behaviour observed on the part of caregiver when sensitive topics discussed -increases in eye gaze behaviour observed when topics of interest or importance to caregiver discussed. -increased caregiver eye gaze behaviour at moments of communication breakdown

	-increase in eye gaze behaviour at moments of collaboration -limited eye gaze observed on the part of the doctor within the interaction -increase in doctor eye gaze behaviours when topics related to medical treatment and child's condition discussed
Facial animation	-minimal changes in facial expression observed during session -facial animation observed when topics of a personal nature discussed -increases in facial animation when topic of perceived importance to caregiver discussed.

Observed Themes or Trends Identified within the Interaction.

Through observing the varied nonverbal and verbal interactions between doctor and caregiver specific trends became evident in relation to the general content of the interaction.

In particular it appears that doctor and caregiver had different perceptions related to matters of importance within this interaction. These perceptions appeared to conform to the differences in opinion, and experience of illness between doctor and patient a point which frequently occurs as a result of the traditional biomedical approach to healthcare (Helman, 1997:101). In the case of the caregiver, although specific concerns related to the child's health were identified by and matched to the doctor's primary concerns, the doctor frequently failed to identify and recognise a number of the caregiver's personal needs. This it is anticipated will impact on treatment outcomes (Friedland & Williams, 1997).

In particular the caregiver attempted to voice concerns regarding social and emotional needs affecting herself and her family, these included; immediate needs related to supporting her grandchild, her unemployment, and dealing with the emotional issues related to the death of her daughter. The doctor's main concerns within the session however, related to treating the specific medical manifestations that the child was presenting with. He therefore refrained from confronting the social and emotional aspects of the disease. This is seen clearly in extracts A.3.9 and A.1.15. The doctor's lack of recognition of the caregiver's personal needs thus appeared to manifest in a reduction of interactive behaviour on the part of the caregiver and thus reduced collaborative behaviours within the session. It was also noted that this specific behaviour on the part of the doctor and his repeated confrontation of specific sensitive topics during the session resulted in frustration on the part of the caregiver – an aspect repeatedly shown in her body posture and gestural behaviours e.g. flicking hand movements. This point is seen in extracts A.3.6 and A.3.7. These behaviours between caregiver and health practitioner it is felt may impact significantly on patient satisfaction as well as having possible effects on treatment adherence (an issue that was already highlighted as being of high risk within the interaction).

Although the doctor made a concerted effort to acknowledge the caregiver's language difficulties, he did at times fail to ensure effective communicative transfer and meet the caregiver's language and communicative needs – this can be seen in extract A.2.6. The efficacy of communicative transfer during the session and thus the overall outcome of the treatment interaction are therefore brought into question.

INTERACTION "B".

A triad interaction between healthcare practitioner "d" (d), young primary caregiver "b" (m) and older female caregiver "b" (g).

As summarised in table 1 and 2 (pg. 78, 79):

- Doctor "b" was a non-specialist, English speaking practitioner who had been working at the research site for two weeks pre-data collection.
- Younger Caregiver "b": was a 22 year old mother living in Crossroads with older female caregiver "b" – her mother - at the time of data collection.
- Older Caregiver "b": was caregiver "b"'s mother.

1. Gestural behaviours within the session:

As is illustrated in table 4 it became apparent in the transcript that all communicative parties in the session were aware of and attempted to bypass communication barriers in the interaction. This was attempted through the implementation of specific gestural mechanisms. Despite this awareness, however gestural behaviours in the treatment session were still somewhat limited on the part of both caregivers and doctor. In particular it was noted that gestures were primarily used by the older and younger caregiver to supplement verbal outputs in cases where there appeared to be communication breakdowns. This is evident in extract B.1.1 where the frequent repetition

and incongruencies between doctor and caregiver verbal outputs indicate ineffective information transfer between the different communicative parties. This implementation of gesture co-occurred with increased caregiver eye contact behaviour, forward body posturing, and poor sequencing and transfer of verbal information between the caregivers and doctor.

Extract B.1.1 – Lines 20 - 30

20
d*UA PB ↓ >m
g*UA PB >d
m*UA PB ↓ hg((HaCoFa)) >d PF EBR
D: (1s) How old is he?

21
d*
g*
m* ← hg((HaDo))
M: 5 years…

22
d* ↓
g*
m*>d
D: Exactly 5 years?

23
d*
g*
m* hn htiR
M: Yes…

24
d* >m hg((Ha))
g*
m*
D: September he will be [5

25
d*
g* PF
m*
G: [6

26 d*
g*
m* hn
M: [yes

27 d* >m hg((Ha))
g*
m*
D: [5

28 d*
g*
m* hg((Ha)) hn
M: [6

29 d* ↓
g*
m*
D:

30 d* hg((Ha))
g*
m* ↓
D: So he's 5 and a ½ then.

As is evidenced in extract B.1.2, the doctor's use of gestural behaviour supplemented his verbal output. The majority of the session saw minimal use of gestures by the doctor, however these gestural behaviours increased in frequency in the interaction when the doctor was discussing specific treatment options and considerations - seen in extract B.1.2 and B.1.3. This was also noted when communication breakdowns between patient and practitioner occurred. This is clearly evident in extract B.1.4. Implementation of gesture by the doctor at time points of communication breakdown in the interaction, was observed as co-occurring with one or more of the following; increased repetition of statements and questions on the part of the doctor, attempts by the doctor to rephrase

these statements in Xhosa, as well as increased caregiver consultation with the older female relative present in the interaction.

Extract B.1.2 - Lines 174 - 177

174
d* UA PB >m hg((HaU)) ↓
g*UA PB >d
m*UA PB↓
D: and, he's fine…and…he's….(2s) when he comes back next month, I'll see him in two months ti- we'll

175
d* >m
g* PF
m* hn
D: see him again next month, and after that we may have to repeat some blood tests..

176
d*
g*
m* hn
M: [ja

177
d* hg((Ha))
g*
m* >d hn ↓
D: [Okay?] In two months time. But next time we'll see you again

Extract B.1.3 – Lines 165 - 166

165
d*UA PB ↓ hg((HaU)) >m ↓ >m
g*UA PB >d
m*UA PB >d hn hnhn A hn ↓ hs
D: Okay, he looks fine, and we are going to keep the medicines the same, we're not going to change it

166
d*
g*
m*
M: ja..

Extract B.1.4 – Lines 124 - 131

124
d*UA PB ↓ hg((Ha)) >m hg((HaFlFi))
g*UA PB>d A >m >d UA
m*UA PB↓ >d A hnhnhn >g UA >d
D: Qala three years? He was a bit late hey? ((gogo and mum laugh)) and Qala nini uhamba?

125
d*
g*
m* >g
D:(4s) When did he start walking?

126
d*
g*
m*
G: one year….

127
d*
g*
m*
M: one year

128
d*
g*
m*
G:…six months

129
d*
g*
m* >d
M:…six months

130
d* hg((HaA)) hg((Ha))
g*
m* ↓ >d hnBr
D: okay…((doctor pages through file))(20s) So he started walking when- talking when he was only three

131
d* hg((HaFi FloA))
g*
m* hn
D: and..uh walking when he was one year?

Table 4 illustrates that gestural behaviours on the part of the primary caregiver were limited in the interaction and did not vary significantly in terms of frequency of use.

Extract B.1.5 does demonstrate, however that gestural behaviours on the part of the older female caregiver (the grandmother) increased within the interaction when the doctor, caregiver and herself discussed issues, which were perceived to be important for the family. These gestural behaviours co-occurred with increased interaction and eye contact behaviours as well as forward body posturing on the part of the older caregiver and at times on the part of the younger caregiver.

Extract B.1.5 – Lines 193 - 199

193
d* UA PB >g
g* UA PF >d
m*UA PB >d
D: What help what are you asking me for?

194
d*
g* ↓ >m ↑ >d hg((HaFl))
m* ↓ >g
G: (10s) [Grant – please!

195
d* hg((HaPo))
g*
m*
D: For you?

196
d*
g* hg((HaPo)) hg((HaFloA)) hg((HaFlA)) hg((HaFl))
m* ↓
G: No, for her – because there is no one, there, there, there is no work!! There's nobody

197
d* ↓hg((HaFl)) hg((HaPo))
g* hg((HaCoFa))
m*
D: (3s) umm (2s) I don't, I don't understand what you're saying. You, are you working?

198
d* hshshs
g*
m*
G: No [I am not working

199
d* hg((HaPo))
g*
m*
D: [You not working

Observations were also made regarding the type of gesture used within the session. Table 4 highlights that in the case of interaction "b" gestures exhibited within the session consisted of some high quality, co-speech gestures, some individualised gestures as well as a small amount of act gestures. It was noted that when co-speech gestures were implemented within the interaction by the health practitioner, sequential head posturing behaviour on the part of the caregiver increased and information transfer was enhanced. This was illustrated through increases in sequential head posturing as is seen in lines 130 and 131 and cohesive verbal outputs (Koole, 2004; Őzuyrek & Kelly, 2007). The implementation of co-speech gestures and their effects on information transfer is further evidenced in extract B.1.6. In contrast extract B.1.7 illustrates the implementation and lack of success of act gestures in terms of information transfer within the treatment session.

Extract B.1.6 – Lines 124 - 131

124
d*UA PB ↓ hg((Ha)) >m hg((HaFlFi))
g*UA PB>d A >m >d UA
m*UA PB↓ >d A hnhnhn >g UA >d
D: Qala three years? He was a bit late hey? ((gogo and mum laugh)) and Qala nini uhamba?

125
d*
g*
m* >g
D:(4s) When did he start walking?

126
d*
g*
m*
G: one year….

127
d*
g*
m*
M: one year

128
d*
g*
m*
G:…six months

129
d*
g*
m* >d
M:…six months

130
d* hg((HaA)) hg((Ha))
g*
m* ↓ >d hnBr
D: okay…((doctor pages through file))(20s) So he started walking when- talking when he was only three

131
d* hg((HaFi FloA))
g*
m* hn
D: and..uh walking when he was one year?

Extract B.1.7 - Lines 194-197

194
d*UAPB
g*UAPF ↓ >m ↑ >d hg((HaFl))
m* UAPB ↓ >g
G: (10s) [Grant – please!

195
d* hg((HaPo))
g*
m*
D: For you?

196
d*
g* hg((HaPo)) hg((HaFloA)) hg((HaFlA)) hg((HaFl))
m* ↓
G: No, for her – because there is no one, there, there, there is no work!! There's nobody

197
d* ↓hg((HaFl)) hg((HaPo))
g* hg((HaCoFa))
m*
D: (3s) umm (2s) I don't, I don't understand what you're saying. You, are you working?

Although table 4 illustrates that no observations were made within the interaction regarding opaque gesture use, it was noted within the interaction that the doctor and caregiver did occasionally use universal or transparent gestures within the interaction. As with the implementation of co-speech gestures illustrated in B.1.6, the use of such gestures were noted as frequently being implemented at time points when communication transfer between caregiver and doctor was difficult. This is clearly evident in B.1.8 where increased difficulties with communicative transfer are evident through code switching behaviours by the doctor as well as non-sequential head posturing behaviours and incongruent verbal and nonverbal outputs on the part of the younger or older caregiver (shaded in line 124 of extract B.1.8). As is evidenced in line 130 of B.1.8 the use of these universal gestures by the doctor did improve information transfer within the interaction, evidenced through sequential head posturing.

Extract B.1.8 – Lines 124 -131

124
d*UA PB ↓ hg((Ha)) >m hg((HaFlFi))
g*UA PB>d A >m >d UA
m*UA PB↓ >d A hnhnhn >g UA >d
D: Qala three years? He was a bit late hey? ((gogo and mum laugh)) and Qala nini uhamba?

125
d*
g*
m* >g
D:(4s) When did he start walking?

126
d*
g*
m*
G: one year….

127
d*
g*
m*
M: one year

128
d*
g*
m*
G:…six months

129
d*
g*
m* >d
M:…six months

130
d* hg((HaA)) hg((Ha))
g*
m* ↓ >d hnBr
D: okay…((doctor pages through file))(20s) So he started walking when- talking when he was only three

131
d* hg((HaFi FloA))
g*
m* hn
D: and..uh walking when he was one year?

2. <u>Head posturing behaviours.</u>

Table 4 highlights that caregiver head posturing behaviours were observed as occurring consistently within the interaction in response to questions and comments made by the doctor during the treatment session. These head nod behaviours were both sequential in nature as is evidenced in extracts B.2.1 and B.2.2 as well as being non-sequential in

nature – seen in extracts B.2.3 and B.2.4. The head posturing behaviours in extract B.2.4 are of particular interest as when viewed individually these head posturing behaviours appear sequential, however when viewed together within the context of the interaction it becomes clear that these head posturing behaviours conflict with one another and thus are truly non-sequential in nature. Non-sequential head posturing behaviours were observed as often co-occurring in combination with one or more of the following; incongruent verbal and nonverbal outputs, forward body posturing of the younger caregiver, as well as poor sequencing of topic turns between caregiver and doctor.

Extract. B.2.1 – Lines 45 - 48

45
d*UA PF >m
g*UA PB
m* UA PB ↓ hnBr
D: No…everything's well…and the medicines, is he taking the medicines well?

46
d*
g*
m* hnhn
M: Yes

47
d*
g*
m*
D: And no problems with the medications?

48
d*
g*
m* hs
M: No.

Extract B.2.2 – Lines 75 – 77

75
d*UA PF ↓
g*UA PB >d
m*UA PB ↓
M: 15

76
d* >m
g*
m*
D: 15?

77
d*
g*
m* >d **hn**
M: Yes

Extract B.2.3 - Lines 48 - 52

48
d*UA PB >m
g*UA PB >d
m*UA PB >d
D: And no problems with the medications?

49
d*
g*
m* hs
M: No.

50
d* ↓
g*
m*
D: side effects or anything?

51
d*
g*
m* A hn
M: Yes.

52
d* >m hg((HaPo))
g*
m*
D: Have you got the [medicines with you?

Extract B.2.4 – Lines 20 - 30

20
d*UA PB ↓ >m
g*UA PB >d
m*UA PB ↓ hg((HaCoFa)) >d PF EBR
D: (1s) How old is he?

21
d*
g*
m* ← hg((HaDo))
M: 5 years…

22
d* ↓
g*
m*>d
D: Exactly 5 years?

23
d*
g*
m* hn htiR
M: Yes…

24
d* >m hg((Ha))
g*
m*
D: September he will be [5

25
d*
g* PF
m*
G: [6

26
d*
g*
m* hn
M: [yes

27
d* >m hg((Ha))
g*
m*
D: [5

28
d*
g*
m* hg((Ha)) hn
M: [6

29
d* ↓
g*
m*
D:

30
d* hg((Ha))
g*
m* ↓
D: So he's 5 and a ½ then.

Variations in head posturing behaviours in terms of the duration and degree of head posturing behaviour are also demonstrated in extracts B.2.5 and B2.6. Table 4 highlights the observation that head posturing degree increased when caregiver and practitioner discussed topics that were of perceived importance to the caregivers as well as when discussions centred around personalised, relaxed topics pertaining to the child's general wellbeing and development. These head nod behaviours co-occurred with increased caregiver facial animation, improved eye contact behaviour and forward body posturing behaviours.

Extract B.2.5 – Lines 203 - 207

203
d*UA PB ↓
g*UA PF >d hshshs
m*UA PB ↓
G: No [I am not working

204
d* hg((HaPo))
g*
m* hs
D: [You not working

205
d*
g*
m*
G: mmmm…

206
d* >g
g*
m*
D: You mean there is nobody working in the house?

207
d*
g* **hn**
m*
G: Yes

Extract B.2.6 – Lines 12 - 15

12
d*A PF >c
g* A PB
m* A PB >d
M: Okay ((laughs))

13
d* >ch
g*
m*
D: I can see he's well!

14
d*
g* >ch
m*>ch **hn**
M: Yes.

15
d*
g*
m*PF
D: Huh [mum ((laughing)).]

Reduced degree of head posturing behaviours also occurred in a specific pattern within the interaction. As is highlighted in table 4, this head posturing behaviour occurred when the doctor and younger caregiver discussed issues that were of a sensitive nature. These head posturing behaviours co-occurred with reduced facial animation on the part of the younger caregiver, reduced eye contact behaviours and intensity of speech of both doctor and caregiver, closed and backward body posturing on the part of the caregiver as well as

increased forward posturing on the part of the doctor. This is seen clearly in extract B.2.7 and B.2.8.

Extract B.2.7 – Lines 104 - 107

104
d* UA PB ↓ >m PF hg((HaPo))
g*UA PB
m*UA PB ↓ >d
D: Okay, umm. Yourself you, you, you not on, are you, you on treatment?

105
d*
g*
m* ↓ *hs**Br*
M: ◦N[o◦

106
d*
g*
m*
D: [No…

107
d*↓
g*
m* hnBr
M: Yes

Extract B.2.8 – Lines 152 – 154

[mum holding bag against chest]

152
d*UA PB ↓ >m
g*UA PB >d
m* UA PB ↓ >d
D: Who, are, are you working mum?

153
d*
g*
m* *hn**Br* ↓
M: ◦No◦

154
d*
g*
m* >d
D: No…And you married?

Head posturing behaviours were also observed as varying in terms of frequency of head nod behaviour. Extract B.2.9 demonstrates that multiple head posturing behaviours occurred when issues pertinent to one or both caregivers was discussed. These head posturing behaviours appeared to frequently co-occur with increased eye contact behaviour on the part of one or both caregivers, forward body posturing, increased gesture on the part of the older caregiver and increased facial animation. Multiple head posturing behaviours were also observed as occurring when casual conversational topics related to the child's general well being and ability were discussed.

Extract B.2.9 – Lines 198 - 204

198
d*UAPB
g*UAPF hg((HaPo)) hg((HaFloA)) hg((HaFlA)) hg((HaFl))
m*UAPB ↓
G: No, for her – because there is no one, there, there, there is no work!! There's nobody

199
d* ↓hg((HaFl)) hg((HaPo))
g* hg((HaCoFa))
m*
D: (3s) umm (2s) I don't, I don't understand what you're saying. You, are you working?

200
d* hshshs
g*
m*
G: No [I am not working

201
d* hg((HaPo))
g*
m* hs
D: [You not working

202
d*
g*
m*
G: mmmm…

203
d* >g
g*
m*
D: You mean there is nobody working in the house?

204
d*
g* **hn**
m*
G: Yes

Table 4 highlights that brisk head nod behaviours were also observed within the treatment session and occurred when sensitive issues between doctor and caregiver were discussed. As with small head posturing movements, these brisk head movement behaviours co-occurred with a combination of the following; reduced facial animation on the part of the younger and older caregiver, reduced eye contact behaviours on the part of doctor and caregiver, closed and backward caregiver body posturing as well as increased forward body posturing of the doctor and reduced intensity of speech from both communicative parties. This point is evident in extracts B.2.10 and B.2.11.

Extract B.2.10 – Lines 152 - 156

[mum holding bag against chest]

152
d*UA PB ↓ >m
g*UA PB >d
m* UA PB ↓ >d
D: Who, are, are you working mum?

153
d*
g*
m* *hn*Br ↓
M: ◦No◦

154
d*
g*
m* >d
D: No…And you married?

155
d*
g*
m* ↓hnBr >d
M: No

156
d* ↓
g*
m*
D: No how, just look.. – you getting a grant or anything?

Extract B.2.11 – Lines 104 - 107

104
d* UA PB ↓ >m PF hg((HaPo))
g*UA PB
m*UA PB ↓ >d
D: Okay, umm. Yourself you, you, you not on, are you, you on treatment?

105
d*
g*
m* ↓ hsBr
M: ◦N[o◦

106
d*
g*
m*
D: [No…

107
d*↓
g*
m* hnBr
M: Yes

Doctor head posturing behaviours, as is indicated in table 4, were noted as being far less frequent in comparison to both younger and older caregiver head posturing and were primarily limited to being sequential in nature.

3. Eye contact behaviours.

Extract B.3.1 demonstrates how eye gaze behaviour patterns of both caregivers increased within the interaction when topics being discussed were of perceived importance to them or centred upon personalised conversations related to the caregiver's child. As is seen in extract B.3.1 these changes in eye gaze which were linked to topics of discussion within the treatment session, were topics frequently introduced and maintained by the older caregiver. This point it is felt is related to the hierarchical orders in social standing between younger and older caregiver in Xhosa culture (Lustig & Koesler, 1993). These observed eye gaze behaviour patterns co-occurred with increased forward body posturing and increased gestural behaviour on the part of the older caregiver as well as increased caregiver duration of topic turn and interaction within the conversation.

Extract B.3.1 – Lines 186 - 192

186
d*UA PB >g
g*UA PF >d
m*UA PB ↓
G: Excuse me doctor – [doctor stops moving] I want to talk to you.. [doctor moves back to sits in chair]

187
d*
g*
m* >d
D: Yes

188
d*
g*
m*
G: I want to talk to you please, because there is nobody at work I am suffering we need help

189
d*
g*
m*
D: What help? What are you asking me? I am not sure…

190
d*
g* ↓ >m ↑ >d hg((HaFl))
m* ↓ >g
G: (10s) [Grant – please!

191
d* hg((HaPo))
g*
m*
D: For you?

192
d*
g* hg((HaPo)) hg((HaFloA)) hg((HaFlA)) hg((HaFl))
m* ↓
G: No, for her – because there is no one, there, there, there is no work!! There's nobody

Eye gaze behaviours on the part of the primary caregiver were increased and the doctor's eye gaze briefly held then broken in cases when information transfer between doctor and caregiver were ineffective. These behaviours seen in extract B.3.2, co-occurred with forward body posturing and non-sequential head posturing behaviours by the caregiver as well as co-occurring with repetition of statements and mismatched verbal outputs between doctor and caregiver. Extract B.3.2 line 20 indicates that these breaks in eye gaze behaviours occurred in response to the doctor's inability to acknowledge caregiver nonverbal requests for clarification during the interaction.

Extract B.3.2 – Lines 20 - 30

20
d*UA PB ↓ >m
g*UA PB >d
m*UA PB ↓ hg((HaCoFa)) >d PF EBR
D: (1s) How old is he?

21
d*
g*
m* ← hg((HaDo))
M: 5 years…

22
d* ↓
g*
m*>d
D: Exactly 5 years?

23
d*
g*
m* hn htiR
M: Yes…

24
d* >m hg((Ha))
g*
m*
D: September he will be [5

25
d*
g* PF
m*
G: [6

26
d*
g*
m* hn
M: [yes

27
d* >m hg((Ha))
g*
m*
D: [5

28
d*
g*
m* hg((Ha)) hn
M: [6

29
d* ↓
g*
m*
D:

30
d* hg((Ha))
g*
m* ↓
D: So he's 5 and a ½ then.

Increased eye contact behaviour was also observed between the younger and older caregiver in instances when information transfer was not sufficiently successful. This observation, table 4 indicates, was a nonverbal behaviour unique to this specific interaction. These instances of behaviour in the interaction, co-occurred with increased repetition and rephrasing of specific statements by the doctor, as well as increased participation in the interaction by the older caregiver. This is evident in extract B.3.3.

Extract B..3.3 - Lines 117 - 120

117
d*UA PB ↓
g*UA PB A
m*UA PF A >g
D: At what age did he start talking?

118
d*
g*
m* >ch
D: Can you remember?

[mum talks to gogo]

119
d*
g* hg((Ha))
m*
G: three.

120
d*
g*
M*
M:…..I think three years…

Table 4 highlights that the caregiver reduced mutual eye gaze behaviour patterns with the doctor during the observed interaction when conversation topics centred on sensitive, emotive issues. Extract B.3.4 and B.3.5 illustrate that this reduction in mutual eye gaze behaviour co-occurred with reduced animation of facial expression, closed caregiver body posturing and forward body posturing on the part of the doctor. Brisk, small head posturing behaviour and reduced intensity of speech were also caregiver behaviours observed as co-occurring with this specific eye gaze behaviour.

Extract B.3.4 – Lines 104 - 107

104
d* UA PB ↓ >m PF hg((HaPo))
g*UA PB
m*UA PB ↓ >d
D: Okay, umm. Yourself you, you, you not on, are you, you on treatment?

105
d*
g*
m* ↓ hsBr
M: ◦N[o◦

106
d*
g*
m*
D: [No…

107
d*↓
g*
m* hnBr
M: Yes

Extract B.3.5 – 152 - 156

[mum holding bag against chest]

152
d*UA PB ↓ >m
g*UA PB >d
m* UA PB ↓ >d
D: Who, are, are you working mum?

153
d*
g*
m* hnBr ↓
M: ◦No◦

154
d*
g*
m* >d
D: No…And you married?

155
d*
g*
m* ↓hnBr >d
M: No

156
d* ↓
g*
m*
D: No how, just look.. – you getting a grant or anything?

Eye contact behaviours on the part of the doctor were far less frequent in nature compared to the younger and older caregiver within the interaction. In particular it was noted that the doctor increased eye gaze behaviours when discussing and explaining treatment options as well as in cases where the doctor acknowledged a breakdown in information transfer within the interaction. This previously mentioned behaviour appeared to frequently co-occur with repetitions and rephrasing of specific statements by the doctor, increased gestural behaviours on the part of the doctor as well as attempts by

the doctor to simplistically interpret his desired message for the caregiver. This point which is mentioned in table 4, can be seen in extract B.3.6.

Extract B.3.6 – 124 - 131

124
d*UA PB ↓ hg((Ha)) >m hg((HaFlFi))
g*UA PB>d A >m >d UA
m*UA PB↓ >d A hnhnhn >g UA >d
D: Qala three years? He was a bit late hey? ((gogo and mum laugh)) and Qala nini uhamba?

125
d*
g*
m* >g
D:(4s) When did he start walking?

126
d*
g*
m*
G: one year….

127
d*
g*
m*
M: one year

128
d*
g*
m*
G:…six months

129
d*
g*
m* >d
M:…six months

130
d* hg((HaA)) hg((Ha))
g*
m* ↓ >d hnBr
D: okay…((doctor pages through file))(20s) So he started walking when- talking when he was only three

131
d* hg((HaFi FloA))
g*
m*
D: and..uh walking when he was one year?

4. Facial Expression behaviours.

Facial expression behaviours in this triad interaction were limited. Animated facial expression on the part of both caregivers, as is seen in table 4, was most frequent when topics related to the child's general well being and development were discussed. These increases in facial animation were also observed during instances of interaction between doctor and child and co-occurred with increases in eye contact behaviour and forward body posturing on the part of the younger caregiver. This is seen in extract B.4.1.

Extract B.4.1 – Lines 13 - 16

13
d*A PF >c
g* A PB
m* A PB >d
M: Okay ((laughs))

14
d* >ch
g*
m*
D: I can see he's well!

15
d*
g* >ch
m*>ch **hn**
M: Yes.

16
d*
g*
m*PF
D: Huh [mum ((laughing)).]

Observations were also made regarding the frequency of facial animation behaviours by the caregivers at the beginning of the session versus the end of the session. As the session progressed facial animation behaviours on the part of both caregivers appeared to reduce in frequency. This change in behaviour appeared to co-occur with increases in medically related topics, less interactions between doctor and child, as well as less frequent informal conversations relating to the child's general well being and development. This observation, as is highlighted in table 4 was unique to this specific interaction.

Predominantly the doctor's facial expression within the session remained inanimate. Extract B.4.1 demonstrates that instances of animation on the part of the doctor were most commonly observed when he was interacting directly with the child in the session and was engaging with topics of a personal, relaxed nature with the caregiver. This increase in facial animation on the part of the doctor was noted as co-occurring with forward caregiver body posturing and facial animation.

Table 4. A Summary of Nonverbal Features Observed within Dyad "B".

	Features observed
Gestural Behaviours	**-**caregiver implemented supplementary and -doctor implemented supplementary gestures -some individual gestures used -occasional co-speech gestures with links to semantic concepts used by doctor and caregiver -act gestures used by doctor and caregiver in the session -no noticeable change in gesture frequency be younger caregiver -increases in gesture frequency by older

	caregiver when topics of interest or importance for caregiver discussed -decreases in gesture when topics of sensitivity discussed -some use universal gestures by doctor and caregiver
Head Posturing	**-**sequential head posturing on part of caregiver observed -non-sequential head posturing on the part of the caregiver observed -emphatic head posturing observed when topics of interest discussed -increased frequency of caregiver head posturing when topics of interest discussed -reduced degree of head posturing when sensitive topics discussed -brisk head posturing when topics of a sensitive nature discussed -minimal doctor head posturing observed
Body Posture	-Forward caregiver body posture when topics of caregiver's perceived importance discussed -Forward caregiver body posture observed when "moments of collaboration" occurred. -Backward caregiver body posture when topics of sensitivity discussed -Forward caregiver body posture when communicative transfer ineffective
Eye gaze	-increased eye gaze behaviour in response to doctor eye gaze behaviours -reduced eye contact behaviour observed on the part of caregiver when sensitive topics discussed -increases in eye gaze behaviour observed when topics of interest or importance to caregiver discussed. -increase in eye gaze behaviour at moments of collaboration -limited eye gaze observed on the part of the doctor within the interaction -some multimodal eye gaze and gesture used -increased caregiver eye gaze behaviours at moments of communication breakdown -**increased eye gaze behaviour between**

	younger and older caregiver when communicative transfer insufficient **-reductions in eye gaze behaviour when doctor does not acknowledge older caregiver visually and verbally** **-limited eye gaze between doctor and older caregiver saw reductions in patient participation levels**
Facial animation	-facial animation observed when topics of a personal nature discussed -increases in facial animation when topic of perceived importance to caregiver discussed. **-facial animation reduced as session progressed**

Observed Themes Identified within the Interaction.

A number of trends were noted between the doctor and the two caregivers within the interaction. In particular it was observed that the presence of an older caregiver within the interaction has definite effects upon the nature and characteristics of the treatment session. The influence of the older female participant within the interaction had marked influences on the involvement of the primary caregiver within the session. The older caregiver exhibited significantly more nonverbal behaviour patterns within the interaction towards the doctor at time points within the treatment session where topics important to the caregiver's family were discussed. Such behaviour patterns on the part of the caregiver most likely resulted from cultural undertones within the Xhosa social order. Thus the interaction was distinctively influenced by the hierarchical social order evident between the older and younger caregiver – a point clearly evident in extracts B. 3.1 and B. 1.8 (Lustig & Koesler, 1993). This point is further affirmed by extract B. 3.1 which

illustrates the fact that when topics of perceived importance for the two caregivers were raised, the elder caregiver introduced these topics within the session and attempted to gain increased involvement within the interaction through nonverbal and verbal means. The younger caregiver's frequent consultation with the older caregiver at specific and often pivotal time points during the session further confirms this observation. Unfortunately it was observed that the doctor often failed to acknowledge these cultural undertones and nonverbal behaviour patterns on the part of the older caregiver for the majority of the interaction. This lack of role acknowledgement on the part of the doctor had negative impacts on interactional dynamics within the session and it is felt will impact negatively on communicative transfer and overall treatment outcomes.

Themes related to the effects of doctor-led, guidance co-operation approaches to healthcare also became evident within the interaction. Thus agendas of doctor and both caregivers were noticed as varying significantly. In particular it was observed that doctor perceptions of important topics to be covered within the interaction centred upon general health and treatment considerations as well as the child's overall development; this can be seen in extract B.3.2.

Issues of specific importance for both older and younger caregiver appeared to centre more upon social and emotional factors such as unemployment, emotional needs related to the younger caregiver's own illness and treatment as well as the financial burdens upon the family unit. Unfortunately these specific caregiver needs were often not recognised

by the medical practitioner. A point which frequently appeared to have negative impacts upon the communicative interaction.

Despite these challenges definite attempts by the doctor were made to improve information transfer with varying degrees of effectiveness. Although the doctor did make specific attempts to address language barriers, there was still a notable amount of failure on his part to identify and interpret nonverbal caregiver behaviours which indicated the efficacy of information transfer - as is seen in extract B.3.3. The doctor also often failed to use the older caregiver (who appeared to be more proficient within the English language) and her social authority to facilitate communication transfer during the interaction. Extract B.3.7 illustrates this point where the doctor failed through eye gaze to acknowledge and incorporate the older caregiver's important role within the treatment session. This was despite her verbal and nonverbal behaviours indicating her wish to become more involved within the medical interaction. The medical practitioner it was observed also frequently failed to identify nonverbal markers that alluded to disintegration in communication transfer. This did have effects on the success of information transfer. Certain aspects of this interaction are therefore brought into question.