Are patient-nurse relationships in breast cancer linked to adult attachment style?

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ABSTRACT

Aims: To ascertain if patients with breast cancer who have positive attachment models of 'self' and 'other' perceive higher levels of support from nurses than do patients with negative attachment models.

Background: Attachment models of 'self' and 'other' develop in childhood and affect relationships throughout life. People with negative attachment models tend to perceive themselves as unworthy of receiving support and to perceive others as incapable or unwilling to offer support. Attachment processes are activated when individuals feel threatened and seek support from those close to them. Breast cancer may represent such a threat and relationships between patients with breast cancer and nurses may therefore be influenced by patients' attachment models.

Design: A between-subjects cross-sectional design was used. Explanatory variables were indicators of patients' attachment models. Response variables were patient ratings of nurse support. Covariates were patient age and patient distress levels.

Method: 153 patients with breast cancer, diagnosed 1-3 years previously, were recruited when attending follow-up oncology appointments over a 51-week period in 2010-2011. Participants completed questionnaires assessing attachment models, distress and perceived support, from the nurse who was available to support them through their cancer. The hypotheses were tested by logistic regression analysis.

Results: Patients with more positive models of 'self' perceived more support from nurses.

Conclusions: Patients' perceptions of nurses when being treated for breast cancer are influenced by patients' own models of attachment. Knowledge of this would help nurses further to individualise the emotional support they give patients.

Keywords: nursing, breast cancer, psychology, interpersonal communication, nurse-patient relationship

SUMMARY STATEMENT

Why is this research needed?

- Breast cancer is for many a distressing experience and discovering more about how patients with breast cancer respond to nurses' efforts to support them allows for more effective support to be offered.
- Exploring the impact of patient models of attachment on the patient-nurse relationship can increase understanding of how nurses can be sensitive to differences between patients.

What are the key findings?

- The interpersonal experiences that patients with breast cancer bring to the patient-nurse relationship influence their perceptions of nurse support.
- Patients with breast cancer with a more positive attachment model of 'self' reported higher levels of support from nurses than did those with less positive models of 'self'.
- **How should the findings be used to influence practice and education?**
- Educating nurses on attachment theory could increase awareness of the impact of patient interpersonal history on patient-nurse relationships.
- Nurse education, with a focus on different ways of supporting patients with different attachment models, could help nurses to enhance the support they provide for patients during the cancer journey.

INTRODUCTION

Breast cancer is the most common form of cancer to affect women worldwide (Liao 2007), with the lifetime risk of developing breast cancer in the UK of 1 in 8 for women (Cancer Research UK 2011). Patients with this disease also face challenges in areas such as relationships, work and finances (Han *et al.* 2005) and are twice as likely to experience anxiety and depression relative to the general population (Burgess *et al.* 2005). Research that explores how people with breast cancer experience support can increase understanding of both the psychological distress involved and how to best work with the individuals affected. The current study focuses on the role that the patient's perceptions of support in the patient-nurse relationship plays in women's experiences of breast cancer.

Background

Being diagnosed and treated for cancer is associated with high levels of psychological distress (Schwarz *et al.* 2008). Nursing support helps to reduce this distress or its impact (Manning-Walsh 2004). Research in Germany and Canada with patients with breast cancer has shown that they value a trusting relationship with nurses, where they feel secure enough to reveal their feelings of vulnerability (Coffey 2006, Remmers *et al.* 2010). Support from nurses includes both practical and emotional care (Hill *et al.* 2004). For a range of health difficulties, including breast cancer and for a variety of nursing roles, including registered nurses specialising in cancer care, patients report better support and lower distress if they are allocated a specific nurse whom they can approach for advice and care (Mattila *et al.* 2010, Swanson & Koch 2010).

In addition to the contribution that nurses bring to the patient-nurse relationship, however, studies in Scotland, America and Finland have all shown the need to recognise that patients are not passive recipients of support, but contribute to shaping their own healthcare

relationships (Arantzamendi & Kearney 2004, Han *et al.* 2005, Mattila *et al.* 2010). A useful framework for understanding patient individual differences and how these may be linked to patient-clinician relationships, is attachment theory (Bowlby 1966, 1979, 1982, 1988a).

Attachment theory

Bowlby (1966) proposed that children are born with an innate need to develop and maintain a relationship with another person, called an attachment figure. This figure instils in them a sense of security, particularly when they feel threatened. The primary attachment figure is a child's predominant care-giver, although an individual may identify new attachment figures throughout life (Bowlby 1988a). Although developed in early childhood, Bowlby (1979) predicted that the influence of attachment would be lifelong and this assumption has been supported empirically (Fraley 2002, Maunder & Hunter 2008). Attachment theory has been found to be applicable internationally, including in Europe, China, Japan and America (Ijzendoorn & Kroonenberg 1988).

The child's early interpersonal experiences lead to the development of internal working models, which are representations of how people relate to others close to them (Bowlby 1988b). These models are largely outside of awareness and affect individual perceptions and expectations of attachment relationships throughout life (Bartholomew & Shaver 1998). Bartholomew and colleagues (Bartholomew 1990, Bartholomew & Horowitz 1991) identified two dimensions, those of the 'self' and 'other', which underlie Bowlby's theoretical internal working models. This conceptualisation of attachment did much to advance the understanding of adult attachment relationships and was described as 'one of the most important theoretical advances in adult attachment.' (Simpson & Rholes 1998, p. 11).

The '‘self’ dimension identifies how positively a person views their own self-worth, with the 'other' dimension relating to how available and supportive a person expects others to be (Griffin & Bartholomew 1994a). An individual who is *securely* attached has positive internal working models of both ‘self’ and ‘other’ – that is, they see themselves as worthy of support and trust others to be supportive. They have low levels of anxiety and avoidance and are comfortable with both intimacy and autonomy. Individuals, however, who have negative models of either ‘self’ or ‘other’ are classified as having insecure attachment.

Does patient attachment influence the patient experience?

A body of literature is developing in a range of countries, including Canada, Italy and the United States of America, which shows that patients’ attachment influences their experience of health care. Across a range of chronic illnesses, including bowel disease (Gick & Sirois 2010), hepatitis C (Ciechanowski *et al.* 2002b), migraine (Rossi *et al.* 2005) and diabetes (Ciechanowski *et al.* 2001, Ciechanowski *et al.* 2002a, Ciechanowski *et. al.* 2004, Ciechanowski *et al.* 2005, Ciechanowski & Katon 2006), having negative models of ‘self’ and ‘other’ is associated with poorer experiences than in those with positive attachment models. These include higher rates of depressive symptoms, lower levels of self-care and higher mortality rates (Ciechanowski *et al.* 2004, Ciechanowski *et al.* 2005, Ciechanowski *et al.* 2010). Ciechanowski *et al.* (2004) argue that individuals who are insecurely attached (i.e. with negative attachment models) have difficulties in benefiting from support from others and are therefore less receptive to social interactions that would promote adherence to self-care and medication. The attachment that patients bring to the patient-clinician relationship, therefore, would be expected also to influence their engagement with the support that clinicians offer.

Attachment and perceptions of support

A review by Maunder and Hunter (2001) concluded that, when experiencing illness, those with negative models of 'other' were less likely to perceive support as helpful and were therefore less likely to seek it. Those with negative models of 'self' but positive models of 'other' benefited less from support than did individuals with positive attachment models and their desire for support was curtailed by their fears of rejection. Attachment is also linked to perceptions of therapeutic alliance (Smith *et al.* 2010). Mental health patients who rated themselves higher on attachment security (and therefore had more positive attachment models of 'self' and 'other') reported stronger alliance with their therapist.

In breast cancer, patient attachment has been found to have a small but significant influence on both alliance with and perceived support from, surgeons (Clark *et al.* 2010, Pegman *et al.* 2011), with greater alliance and perceived support associated with positive, relative to negative, attachment models. Other clinicians, such as nurses, however, also play key roles in providing care and theoretically fit the requirements of attachment figures. Examining the role of patient attachment in these relationships is therefore important.

Nurses as attachment figures?

Attachment behaviour becomes evident when an individual is ill and wants comfort, with the individual consequently seeking a sense of security from a suitable attachment figure (Bowlby 1988a). When Bowlby presented his theory in 1966, he reflected on the experience of a child staying in hospital and separated from its mother. He recommended that, in this circumstance, it is important to allocate the child to a specific nurse, to allow the child a secure relationship with a named individual. In other words, at this vulnerable time, the nurse may become an attachment figure from whom the child gains a sense of security.

In support of this idea, patients describe characteristics in the patient-nurse relationship that are similar to those found in attachment relationships. In particular, research conducted with people from Europe, the Middle East, Africa and the USA has all found that patients describe good patient-nurse relationships as encompassing trust, emotional support and being treated as an individual and as allowing them to feel secure enough to depend on and share their fears with, the nurse (Ramos 1992, Pålsson & Norberg 1995, Deeny & McGuigan 1999, Coffey 2006, Dowling 2008, Rchaidia *et al.* 2009, Beaver *et al.* 2010, Kristiansen *et al.* 2010, Remmers *et al.* 2010). If the nurse-patient relationship has characteristics of an attachment relationship, we should expect that patients' attachment models would influence their experience of the relationship. However, there is not yet a study which investigates the influence of patient attachment on the patient-nurse relationship in breast cancer. The present study aimed to do this.

THE STUDY

Aim

The aim of the study was to ascertain if the attachment models of patients with breast cancer influenced how supported they felt by nurses. Two hypotheses were addressed: 1) that patients with breast cancer who have positive attachment models of 'self' will perceive higher levels of support from the nurses working closely with them than do patients with breast cancer with negative attachment models of 'self'; 2) that patients with breast cancer who have positive attachment models of 'other' will perceive higher levels of support from the nurses working closely with them than do patients with breast cancer with negative attachment models of 'other'.

Design

A between-subjects cross-sectional design was used. The explanatory variables were indicators of the patients' models of attachment. Response variables were patient ratings of support from nurses. Patient distress was included as a covariate, to exclude the possibility that this factor may act as a confounder in biasing reports of attachment or patient-nurse relationships. Patient age was significantly associated with attachment models of both 'self' and 'other' in preliminary analyses and was therefore also a covariate.

Sample

A consecutive sample was recruited from breast cancer out-patient clinics in a UK teaching hospital. The inclusion criteria were having received a diagnosis of primary breast cancer between one and three years earlier and having undergone either a wide local excision or a mastectomy at the study hospital. A member of the clinical team identified suitable patients by examining patient appointment lists and then asked the identified patients on arrival if they would be interested in participating. Patients who agreed met the researcher in a private room to discuss the study. Information sheets were provided and participants were given time to ask questions. Written consent was obtained. Patients completed the questionnaires in the researcher's presence, mostly before the consultation, with a few participants choosing to take their questionnaires home and return them in a pre-paid envelope. Exclusion criteria were patients who had received pre-operative chemotherapy, those who had recurrent or metastatic cancer, those who were still receiving chemotherapy or those who were judged too distressed to be asked for consent and, due to the extremely low incidence, males with breast cancer. These criteria are consistent with previous studies (e.g. Salmon *et al.* 2007), facilitating comparability with them.

The minimum necessary sample size was calculated using the recommendations for logistic regression suggested by Harrell *et al.*(1984) – this is, for each of the two outcome groups

(perceived complete or incomplete nurse support), at least ten cases are required per predictor variable. The current analysis had four predictor variables; attachment model of 'self', attachment model of 'other' and covariates of emotional distress and age. This suggests a minimum sample of 80 participants. To enhance power in view of the heterogeneity of the sample in age and clinical characteristics, we aimed for approximately 160 patients.

Data collection

A total of 180 patients were approached in a 51-week period spanning 2010-2011. Of these, 163 agreed to participate. Data were collected using several self-report questionnaires, all of which had previously been used for research in breast cancer (Salmon *et al.* 2006, 2007, Clark *et al.* 2010, Pegman *et al.* 2011). A total of 133 participants completed questionnaire booklets in the hospital and 33 took them home to complete. Of the 33 who took the booklets away, 20 posted them back. In total therefore 153 completed questionnaire booklets were available.

Several approaches to measuring adult attachment have been developed, with no one measure currently universally accepted. The current study needed a way to measure attachment that was: suitable for adult non-romantic relationships; able to generate data consistent with a dimensional approach to attachment; and relatively quick to complete in a busy outpatient clinic. The Relationship Questionnaire (RQ) and the Relationship Scales Questionnaire (RSQ), which have been used in previous studies of hospital outpatients, including those with breast cancer ((Ciechanowski *et al.* 2002c, Clark *et al.* 2010, Pegman *et al.* 2011) met these criteria. The RQ comprises four items, each describing an attachment style formed from the combination of positive or negative models of 'self' and 'other'. Participants rated each style, using a 7 point Likert-type scale, according to how much they thought the description matched their general relationship style. The scale ranges from 'not at all like me' to 'very

much like me'. The RSQ consists of 30 items, each relating to a different style of attachment. It uses a 5-point Likert-type scale for each item, with participants choosing from 'not at all like me' to 'very much like me'. Results from the RQ and RSQ were combined to form a composite measure of adult attachment as recommended by Bartholomew (2002).

A measure of emotional distress, the General Health Questionnaire-12 (GHQ-12; Goldberg *et al.* 1997) was also used to control for the confounding influence this variable may have. The GHQ-12 comprises twelve items, such as 'have you recently felt you could not overcome your difficulties? A 4-point scale is used in scoring, a cut-off score of $\geq$3 being used to identify caseness (i.e. clinical levels).

The Perceived Professional Support Questionnaire (PPSQ – Hill *et al.* 2004) was the primary measure of patients' perceived support from nurses. It comprises four items, two of which explore level of trust and perceptions of emotional support (e.g., 'can you trust, talk frankly and share your feelings with them?'). The remaining two relate to practical support (e.g., 'do they give you practical help?'). Scores from all items were summed, to give an overall measure of support. As a secondary measure, the Working Alliance Inventory – Short (WAI-s; Tracey & Kokotovic 1989), was also used (Hill *et* al. 2004). This explores three aspects of the alliance between patient and clinician; sense of agreement on goals and tasks and perception of interpersonal bond. Initially developed to assess alliance between client and therapist, this measure has been adapted for use in healthcare research (Fuertes *et al.* 2007, Pegman *et al.* 2011). It comprises twelve items, used here to examine the patient-nurse relationship. Examples of items include 'my nurse and I trust one another' (bond subscale), 'we agree on what is important for us to cover' (task subscale) and 'my nurse and I are working towards the same thing' (goal subscale). When completing these measures, patients were asked to recall and evaluate their last interaction with the main nurse who supported

them (as patients received help from nurses in a variety of roles, it was decided to allow the patient to select this nurse).

Demographic and clinical details were recorded for each participant.

Ethical considerations

NHS ethical approval was obtained (REC reference number 09/H1002/87). Approval was also obtained from the Research and Development department at the study hospital.

Data Analysis

SPSS version 18 was used to analyse the data. Preliminary analyses tested the relationship of attachment variables with demographic and clinical characteristics. Age (as a continuous variable) and distress had significant relationships with attachment variables and were therefore used as covariates in logistic regression analyses. This was in keeping with previous research in the area (Clark *et al.* 2010).

Scores on the PPSQ and the WAI-s showed negative skews and were therefore transformed into binary data, with 1 representing maximum support ratings and 0 signifying incomplete support, as in previous studies (Clark *et al.* 2010). To ascertain that the assumptions for logistic regression were not violated. Data were inspected for outliers, which were not found. Tolerance values were above 0.1 and VIF values were below 10, indicating that multicollinearity was not present. Therefore, data were appropriate for logistic regression (Pallant 2007).

Two sets of sets of logistic regression analyses were carried out. The first used the PPSQ as the response variable and the second used the WAI-s. In both sets of analyses the predictor

variables were models of 'self' and 'other'. Univariate analyses were conducted to ascertain the individual effects of the predictor variables and covariates on the response variable. Multivariate analyses then tested the relationship between attachment and the response variable, controlling for the covariates.

Validity and reliability

Both the RQ and the RSQ have been found to be reliable and valid (Griffin & Bartholomew 1994b). Internal consistency cannot be calculated for the RQ (the four items each contribute to the two attachment dimension scores algorithmically), but in the current study was acceptable for the RSQ (Cronbach $\alpha = 0.76$). The GHQ has good levels of sensitivity and specificity (Goldberg *et al*. 1997) and in the current study Cronbach's alpha was acceptable ($\alpha = 0.92$). The PPSQ has good internal reliability and test-retest reliability (Hill *et al.* 2004), with an inter-item correlation of 0.76 in the current study. Horvath and Greenberg (1989) found the WAI to have adequate reliability, with good internal consistency and content validity. The internal consistency was again acceptable in the current study ($\alpha = 0.93$).

RESULTS

Participants' age ranged from 33-83 years. The mean was 60.6 years (standard deviation 8.6). One patient cited her ethnicity as Chinese (0.7%) while the remaining 152 participants (99.3%) were white British. Most participants (102) selected their cancer nurse specialist as the main nurse who supported them. The remaining participants chose a range of nurses (Table 1).

For each of the two logistic regression analyses, the p-values from the Wald tests were used to ascertain if each predictor variable made a significant contribution to the response variable. The odds ratios, Wald test p-values and 95% confidence intervals are reported.

Response variable: PPSQ

The results of the logistic regression analyses are shown in Table 2. The univariate analyses showed that the 'other' model was unimportant. Older age, a more positive model of 'self' and not being distressed were, however, significantly related to feeling fully supported by the nurse. In the multivariate analysis, age and distress were no longer significant. In contrast, a more positive model of 'self' continued to predict feeling fully supported by the nurse, with an odds ratio value of 1.15. For the model of 'self' the range between the 25th percentile (-2.2) and the 75th percentile (2.63) was approximately 5 units. Therefore patients who scored at the 75th percentile were approximately twice as likely to feel fully supported by nurses as those who scored at the 25th percentile (i.e. 1.15^5).

Response variable: WAI-s.

Patient-nurse alliance was then analysed, with the WAI-s as response variable (Table 3). The predictor variables remained age, attachment and distress. When tested separately age, distress and the model of 'other' were unimportant. In contrast, the univariate analyses showed that patients with a positive model of 'self' were mostly likely to feel complete alliance with the nurse. In multivariate analysis, age, distress and the model of 'other' remained non-significant. The significant effect of the model of 'self', however, remained, with an odds ratio value of 1.19. The range between the 25th percentile and the 75th percentile was approximately 5 units (-2.46 - 2,22). Therefore patients whose scores fell at the 75th percentile were over twice as likely to feel fully supported by nurses than those who scored at the 25th percentile (i.e. 1.19^5).

DISCUSSION

The first hypothesis, that patients with breast cancer who had positive attachment models of 'self' would feel more supported by nurses than would patients with negative models of

'self', was supported by the findings. Patients with more positive models of 'self' were significantly more likely to report full support from nurses than were those with less positive 'self' models. Support for the second hypothesis, however, was not found. Patients' models of 'other' were not related to patient perceptions of nurse support. That both measures of relationship generated similar results supports the robustness of the findings.

The current study presents the first finding that patients' models of attachment shape how they experience the patient-nurse relationship. It is, however, in keeping with previous research in this field which shows a link between the models of attachment of breast cancer patients and these patients' perceptions of support in their relationships with treating clinicians. Both Clark *et al.* (2010) and Pegman *et al.* (2011) reported that patients with breast cancer with more positive models of 'self' reported higher levels of support from their doctors than did those with less positive models of 'self'. This finding is, therefore, consistent with the existing literature.

The finding that patients with more positive models of 'self' perceived higher levels of nurse support, relative to patients with more negative models of 'self', is consistent with attachment theory. Bowlby (1988b) specified that an attachment figure should be both *available* and *responsive*. Nurses meet these criteria, although this would vary with nursing roles. Most participants (66.7%) selected their cancer nurse specialist as the main nurse that supported them. Cancer nurse specialists provide a link between patients and the cancer team and can be contacted at any time with questions or for emotional support. Patients with breast cancer at the study hospital were allocated an individual cancer nurse specialist who remained with them throughout their cancer journey. Although, at the stage that participants were recruited (1-3 years post-diagnosis), many were no longer in frequent contact with their cancer nurse specialist, this support was still available should patients request it. Indeed, several participants commented that, when they asked for help, the cancer nurse specialists responded

quickly and others commented that it was helpful simply to know that the nurse was available. Nurses in this role in particular could therefore be regarded as potentially resembling an attachment figure in being available and responsive.

It is interesting that there was no relationship between the attachment model of 'other' and perceptions of nurse support. This finding is also in keeping with previous research which has found weaker relationships between the model of 'other' and aspects of physical health and health care, compared with those found for the model of 'self' (Clark *et al.* 2011, Maunder *et al.* 2011). For the current study, the time in the cancer journey that patients were recruited may have influenced the results, as they were at the stage where the initial threat of the disease is likely to have retreated and they were visiting the oncology clinics for follow-up. Attachment systems are activated in times of threat and it may be that the attachment processes underpinning the model of 'other' were less activated at this time.

The current study has found that patient attachment processes influence the patient-nurse relationship, even at a time when the initial threat of cancer has somewhat receded. This indicates a potentially fruitful area for further research, for example to explore attachment and the patient-nurse relationship at a stage in the cancer journey when patients feel more under threat, such as around the time of diagnosis. Although the current study has examined patients' attachment, the attachment processes of nurses are also likely to influence the patient-nurse relationship. Future research could examine nurses' attachment models and how these interact with patients' attachment.

What patients bring to healthcare, therefore, in terms of past experiences that shape their models of attachment, has a significant influence on how supported they feel by nurses, as well as other clinical staff. This has implications for nursing practice in breast cancer. Providing nurses with education on attachment theory, with a focus on how individuals with

different attachment models of 'self' and 'other' can interpret the same social situation as containing very different levels of threat or support, could help nurses further to understand patients' differing needs and could provide a conceptual framework to help individualise the support they provide. For instance, patients with a negative model of 'self' will tend to believe that they are not worthy of being supported and may be fearful of close relationships. Therefore they might make few demands on nurses, which nurses could misinterpret as indicating self-sufficiency. Patients with negative models of 'other' will tend to fear that other people are untrustworthy and might similarly avoid being close to nurses or might even be hostile. Again, a nurse might misinterpret this stance as indicating that the patient does not need or want support.

Limitations

There were several limitations to this study. The cross-sectional design does not allow cause and effect relationships to be demonstrated. Patients were recruited from only one hospital, so generalisability has to be tested. Although only 10% of patients who were approached declined to participate, it is possible that self-selecting bias may have affected the findings. Patients with recurrent or metastatic cancer were also excluded. These more physically threatening experiences of cancer may have activated attachment processes more profoundly than in the study patients. There were also limitations of the measures used. Although the WAI-s has been used to assess alliance between breast cancer patients and doctors previously, this is the first study to apply it to the patient-nurse relationship. The current study asked participants to select the nurse whom they considered the most important in their care. This means that it is not possible to link the findings to a specific nursing role in breast cancer, although it is interesting that most participants (66.7%) selected their cancer nurse specialist. Measurement of adult attachment is contentious and differing approaches have been developed (Bartholomew & Shaver 1998).

CONCLUSION

Individuals' models of attachment develop in childhood and continue to affect relationships throughout the lifespan. The present study showed that patients with breast cancer who perceive themselves as worthy of support in close relationships were more likely than others to experience nurses as supportive. Educating nurses on attachment theory, with a focus on how individuals with different models of 'self' and 'other' can interpret the same social situation as containing very different levels of threat or support, could help patients indirectly by aiding nurses in providing appropriate support. One way nurses could be helped is by knowing that problems in relationships with some patients can reflect the patients' attachment difficulties and not necessarily failures of nurse' communication skills. Nurses might also be able to adjust their support to patients' attachment needs. As the first study to examine this area, the results suggest that future research efforts here would be fruitful.

No conflict of interest has been declared by the authors.

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Table 1 Types of nurse identified by participants as the main nurse who supported them

Type of nurse	N	%
Cancer nurse specialist	102	66.7
Oncology ward nurse	11	7.2
Clinic nurse	8	5.2
Practice nurse	7	4.6
Primary care nurse	2	1.3
Nurse not specified	10	6.5
Missing data	13	8.5
Total	*153*	*100*

Table 2 Results of logistic regression analysis with PPSQ as response variable

Response variable: PPSQ						
	Univariate analyses			Multivariate analysis testing for effect of attachment, controlling for age and distress.		
Predictor variables	Odds ratios	p	CI 95%	Odds ratios	P	CI 95%
Age	1.05	.03*	1.01– 1.94	1.03	.18	.99– 1.09
Distress	.30	<.01 **	.14- .64	.54	.18	.22– 1.33
Attachment 'self'	1.19	<.01 **	1.07– 1.33	1.15	.02*	1.02– 1.3
Attachment 'other'	.99	.89	.86– 1.1	1.03	.67	.91– 1.15

*= significant at p<0.05

** = significant at p < 0.01

Table 3 Results of logistic analysis with WAI-s as response variable.

WAI-s as response variable						
	Univariate analysis			Multivariate analysis testing for effect of attachment, controlling for age and distress.		
Predictor variables	Odds ratios	p	CI 95%	Odds ratios	p	CI 95%
Age	1.01	.55	.97– 1.06	1.01	.76	.96– 1.06
Distress	.50	.11	.21– 1.18	1.04	.95	.38– 2.81
Attachment 'self'	1.21	<.01**	1.06– 1.37	1.19	<.01 **	1.04– 1.37
Attachment 'other'	1.03	.65	.92– 1.15	1.04	.54	.92– 1.18

** = significant at p<0.01level