

ATTACHMENT STYLE AND DIETARY SELF-REGULATION IN PERSONS AT RISK FOR TYPE II DIABETES

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Abstract

Introduction: Attachment theory and Self-Determination Theory were used as explanatory frameworks for understanding diet-related health behaviour for persons identified at risk for type II diabetes. The effect of attachment models of self and others on treatment motivation (autonomous, controlled, and amotivation) was examined. Furthermore, it was predicted that accurate illness perceptions of type II diabetes and ability to regulate emotions would determine autonomous motivation.

Method: A sample of 116 volunteer participants (73 female, 43 male) aged between 40 to 65 years (mean age of 51.28 years) completed an online survey. The measures used were the Relationship Questionnaire, the Brief Illness Perception Questionnaire, the Self-Regulation Scale, the Perceived Competence Scale and the Treatment Self-Regulation Questionnaire.

Results: Using hierarchical regression, models of self and others were not found to add significantly to the prediction of diet amotivation, autonomous motivation or controlled motivation for diet. Gender was found to be the most significant contributor to the prediction of controlled motivation for diet. Positive models of self (secure attachment) were associated with self-regulation, perceived competence to make dietary changes and lower amotivation. Negative models of self and others (fearful, dismissing attachment) were not related to treatment motivation to make dietary changes.

Conclusions: An attachment framework does not appear to be useful in understanding treatment motivation for persons at risk for Type II diabetes. This finding needs to be replicated with other chronic illnesses and has significance for self-management.

The World Health Organization reported that 422 million adults worldwide had diabetes in 2016, which corresponds to a global prevalence of 8.5% in the adult population.



Treatment Motivation

Treatment motivation enhances one's physiological and/or psychological well-being based on health recommendations. It can be understood from the perspective of Self-Determination Theory (SDT, Ryan & Deci, 2000).

SDT specifies three corresponding innate psychological needs essential for the activities involved in goal setting and planning:

- 1) the experience of competence (perceived ability to perform a specific task, action or function successfully),
- 2) relatedness (the desire to be connected to feel connected to others), and
- 3) autonomy (the individual's desire to self-organise experience and behaviour with their integrated sense of self (volition), including the experience of integration and freedom. (deCharms, 1968; Deci, 1980; Deci, Koestner, & Ryan, 1999; Ryan & Connell, 1989; Sheldon & Elliot, 1999).

Autonomous and controlled activities involve different types of regulatory processes, yet both are instances of intentional (*i.e.* motivated) behaviour. Within the SDT theory *integration* is considered the most complete form of internalisation of extrinsic motivation. It involves identifying with the importance of behaviours and integrating those identifications with other aspects of the self - including coherence with one's values and identity (Pelletier, Tuson & Haddad, 1997; Ryan, 1995). *Identification* represents a form of less than fully self-determining behaviours whereby individuals recognise and accept the underlying value of a behaviour, with the resulting behaviour being more autonomous and becoming a part of their identity. *External regulation* is the most controlled form of motivation based on what Deci and Ryan (1985) term "others administration of contingencies". Individuals behave to attain a desired consequence. *Introjection* entails accepting external regulations in their relative form without *self-assimilation* (becoming part of the integrated set of motivations, cognitions and affects that constitute the *self*, see Ryan & Connell, 1989). *Amotivation* is a state in which people lack the intention to behave and lack motivation as termed in the cognitive-motivational tradition. According to SDT, individuals are likely to be amotivated when they lack either a sense of efficacy or a sense of control with respect to a desired outcome (Pelletier, Dion, Tuson & Green-Demers, 1999).

Attachment

Bartholomew and Horowitz (1991) proposed a model of adult attachment in which an individual's views of self and others represent general expectations about the worthiness of the self and the availability of others. Their self-other framework describes four types of adult attachment patterns: one secure (namely secure) and three insecure (preoccupied, fearful and dismissive) styles. Adults who have a predominantly secure attachment style are likely to have received consistent early caregiving, have a positive view of self and others, and are comfortable depending on, and being comforted by others. Adults with a preoccupied attachment style are likely to have received inconsistent caregiving, have a negative view of self, but view others positively and become emotionally dependant on them. Adults with a fearful attachment style have both a negative view of self and of others, and are likely to have received rejecting and insensitive early caregiving. Adults with a dismissive attachment style, through early unresponsive caregiving, are uncomfortable with trusting others. Attachment was examined using the underlying dimensions of self [*i.e.* (secure plus dismissive) MINUS (fearful plus preoccupied)] and others [*i.e.* (secure plus preoccupied) MINUS (fearful plus dismissive)].



Aim of the Study

To examine the relationship between attachment style and health outcomes. In particular to investigate the effect of models of self and other (dimensional constructs of attachment) on treatment motivation for a group of at risk individuals. It is hypothesised that models of self and others will be differentially related to treatment motivation.

Respondents

- 116 participants aged between 40 to 65 years
- mean age of 51.28 years ($SD = 7.15$)
- 73 females (63%) and 43 males (37%)
- Education – 80% held tertiary qualifications, followed by 13% with secondary qualifications, and 7% with trade certificates
- 68% reported a family history of type II diabetes
- For risky health behaviours 10% lacked regular exercise, 7% reported high alcohol use, and 5% smoked

Materials

- Brief Illness Perception Questionnaire (Moss-Morris, Weinman, Petrie, Horne, Cameron, & Buick, 2002)
- Treatment Self-Regulation Questionnaire (Williams, Grow, Freedman, Ryan & Deci, 1996);
- Perceived Competence Scale (Williams & Deci, 1996).
- Self-Regulation Scale (Schwazer, Diehl & Schmitz, 1999)
- Relationship Questionnaire (Bartholomew & Horowitz, 1991)

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Results and Discussion

The final model for predicting amotivation for diet accounted for a total of 19.2% of the variance. Once all predictors had entered the model, only level of understanding in addition to perceived competence significantly contributed to amotivation. In summary, models of self and other did not significantly contribute to the model. Participants with higher levels of understanding and higher levels of diet competence reported less amotivation.

The final model for controlled motivation for diet accounted for a total of 16.7% of the variance. Once all predictors were entered into the model, only gender significantly contributed to controlled motivation. Females are more likely to make dietary changes on the advice of health professionals. In summary, models of self and other did not significantly contribute to the model.



The final model for autonomous motivation for diet accounted for a total of 35.1% of the variance. Once all predictors were entered into the model, only level of understanding, perceived competence and number of symptoms significantly contributed to autonomous motivation for diet. In summary, models of self and other did not significantly contribute to the model. Participants with higher levels of understanding, higher levels of diet competence and a higher number of symptoms reported more autonomous motivation.

Table 1

Final diet models from the Hierarchical Regression Analyses for Variables predicting Amotivation, Controlled Treatment Motivation, and Autonomous Treatment Motivation.

Variable	Amotivation			Controlled Treatment Motivation			Autonomous Treatment Motivation		
	B	SE B	β	B	SE B	β	B	SE B	β
Constant	13.49	3.42		29.93	7.80		20.35	5.23	
Gender	-	-	-	-4.32	1.42	-.28**	-	-	-
Level of Understanding	-.30	.12	-.24*	.34	.26	.13	.46	.19	.21**
Self Dimension	-.10	.09	-.10	.17	.16	.09	.08	.14	.05
Other Dimension	-.11	.08	-.13	-.04	.19	-.02	.13	.12	.09
Self-Regulation Scale	-.06	.08	-.07	-.23	.17	-.14	1.90	.35	.89
Perceived Competence Scale	-.50	.23	-.22*	-.45	.49	-.09	1.90	.35	.49***
Number of Symptoms reported	-.16	.13	-.12	.49	.27	.18	.39	.19	.17*
Illness Perception Questionnaire	.01	.04	.02	-.04	.09	-.04	-.00	.07	-.01
R ²		.19			.16			.35	
F for change in R ²		.76			1.68			2.11	

*p<.05. **p<.01. ***p<.001

Limitations

Self-report data

Respondents *self-identified* as being at risk of developing type II diabetes

Future Directions

Use of a national risk assessment tool rather than sole perception of risk of developing type II diabetes. More precise examination of situational variables including maintenance versus engagement motivation. Examination of cognitive maturation effects via age comparisons (as these may have influenced the results, with older individuals having more experience and opportunity to adopt maladaptive working models). Behavioural outcome investigation (longitudinal design). Further examination of sex differences in controlled motivation in relation to diet. The incorporation of cultural diversity

Conclusion

Attachment theory is not a useful framework for understanding treatment motivation for at-risk individuals.



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