Brief Report

Prospective predictors of psychosocial support service use after cancer

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Abstract

Objective: To identify prospective predictors of psychosocial support service utilisation by people with cancer. Consistent with the theory of planned behaviour (TPB), attitudes towards help seeking and behavioural intentions were predicted to lead to greater support service utilisation.

Methods: A heterogeneous sample of cancer patients from a regional cancer treatment centre in Australia completed a prospective survey ($n = 439$ at recruitment, 61.2% response rate; $n = 396$ at follow-up) examining the utilisation of psychosocial support services. Demographic variables (age and gender), social support, social constraints, cancer specific distress, and positive and negative attitudes towards help seeking were examined as prospective predictors of support service use. Further, a series of regression analyses explored mediation of the relationship between attitudes to seeking help and support service use by behavioural intentions.

Results: Approximately 14% of cancer patients reported using a psychosocial support service in the 6 months following the time of the first study. Females and patients with more positive attitudes towards help seeking were more likely to have utilised a support service in the 6 months following recruitment. The relationship between positive attitudes to seeking help and psychosocial support service use was mediated by behavioural intentions.

Conclusions: The TPB appears to have utility in explaining in part use of psychosocial help services. Future studies should include contextual factors in the model.
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The prevalence of clinically significant psychological distress in cancer patients has been estimated to be as great as 35% [1] and many patients continue to report unmet psychological needs years after their diagnosis [2]. Supportive care interventions have been shown to be effective in reducing psychological distress and improving quality of life and adjustment after cancer [3]. However, utilisation of support services by cancer patients is low and many patients do not access services even when health professionals promote referrals [4,5].

Identifying patient characteristics associated with support service use can help health professionals to target variables that increase service use. A number of patient-related factors have been associated with psychosocial support service utilisation including being younger, female and better educated, having higher social constraints and cancer-related distress, and lower social support [4,6–8]. However, a limitation of current research has been the reliance on cross-sectional designs, homogeneous patient groups, and the lack of strong theoretical frameworks to guide the research [6].

Accordingly, this paper extends research undertaken by Steginga *et al.* [8] exploring the utility of the theory of planned behaviour (TPB) [9,10]; in predicting the uptake of psychosocial support services by patients with cancer. The TPB states that attitudes towards seeking help are an important predictor of intention to participate in behaviour and that in turn, behavioural intentions are associated with actual behaviour. Steginga *et al.* found that greater positive and fewer negative attitudes towards seeking help were associated with patient's intentions to use psychosocial support services. This study draws on follow-up data from Steginga *et al.* to examine whether attitudes and behavioural intentions are predictive of psychosocial support service utilisation, prospectively.

Method

Participants

Details of participant demographics and study protocols for Time 1 [8] and Time 2 [2] have been

reported elsewhere. To summarise briefly, participants were a heterogeneous sample of cancer patients aged older than 20 years (excluding patients with prostate cancer owing to their participation in a pre-existing study), who had been diagnosed with a solid tumour or haematological cancer and had presented to a regional cancer treatment centre in Queensland, Australia within 6 months prior to the study. The majority of respondents were female (59%), ranging between 22 and 89 years of age (M = 59.23, SD = 12.00), and had completed treatment at the time of the interview (78.6%). Over 90% of respondents who participated in the Time 1 assessment ($n = 439$) completed the study at Time 2 ($n = 396$). Participants who completed only the first assessment did not differ on any demographic characteristics from those participants who completed both assessments.

Procedure

A brief computer-assisted telephone interview (CATI) assessed sociodemographic, medical characteristics and psychosocial service use at baseline and at 6 months follow-up. A self-report questionnaire was mailed to participants following each CATI assessing psychosocial factors including social support, cancer-related distress, positive and negative attitudes towards seeking help after cancer, and behavioural intention. Ethical approval was obtained from the Townsville Health Service District Human Research Ethics Committee.

Procedures and materials

Self-report measures (Time 1)

Sociodemographic and medical variables
Consistent with the results from Steginga *et al.* [8], age and gender were the only demographic variables examined in this study.

Attitudes to seeking help after cancer
The attitudes to seeking help after cancer [8] was developed from guidelines for scales based on the TPB [11] and assesses attitudes towards seeking emotional or psychological support after cancer. Ten items measure negative attitudes towards help seeking (e.g. *it would seem weak to ask for support*) and five items measure positive attitudes towards help seeking and positive expectations from health professionals and family (e.g. *it would be beneficial for me to contact a health professional for emotional/ psychological support*). In this study, the negative and positive attitude scales demonstrated good internal consistency ($\alpha = 0.81$ and 0.75, respectively).

Behavioural intentions
Three items assessed behavioural intention [8] to contact a health professional for emotional/

psychological support within a 6-month future time frame (e.g. *I plan to contact a health professional for emotional/psychological support in the next 6 months*). This scale was also developed from guidelines for developing measures based on the TPB [11] and demonstrated good internal consistency ($\alpha = 0.92$).

Social support
The ENRICHD Social Support Instrument [12] assesses functional and emotional support utilising five items measured on five-point scales ranging from 1 (none of the time) to 5 (all of the time). Higher scores indicate greater availability of social support. The scale demonstrates good internal consistency ($\alpha = 0.93$ for this study) and has been used as a prospective predictor of healthcare experience in previous research [13].

Cancer-specific distress
The Impact of Events Scale (IES) [14] is a 15-item measure examining cancer-specific distress by assessing the frequency with which respondents experience intrusive (7 items) and avoidant (8 items) thoughts over the past week. The 4-point scale ranges from 0 (not at all); 1 (rarely); 3 (sometimes); 5 (often) with higher scores indicating greater symptoms. In this study, internal consistency for the total IES scales at Time 1 were good ($\alpha = 0.94$).

Social constraints
Fifteen items assess social constraints on cancer disclosure [15] using 4-point scales ranging from 1 (*never*) to 4 (*often*) with higher scores indicated greater constraints. Respondents are instructed to refer to a spouse or partner, or a friend or relative. The scale demonstrated excellent internal consistency in this study ($\alpha = 0.94$).

Outcome variable (Time 2)

Support service utilisation
Psychosocial support service utilisation was assessed by asking participants to indicate whether they were aware of a range of psychosocial support services (e.g. professionally led support group) and for those who were aware of the service, whether they had utilised the service in the time since they were last interviewed.

Results

Of the patients who were aware of the various psychosocial services (ranging from 22.2% being aware of the availability of a relaxation trainer to 80.3% being aware of professionally led support groups) each service was used by between 0 and 6.9% of respondents in the time since they were last

interviewed. A composite binary variable was created by identifying respondents who had used at least any one of the psychosocial services and respondents who had not used any service. A total of 14.1% of respondents had used at least one psychosocial service in the time since their last interview and this outcome was used in subsequent analyses as it was more likely to provide for robust statistical tests of the predictions. On average, patients ($n = 396$) reported high social support (M = 20.81, SD = 4.78), low social constraints (M = 1.68, SD = 0.69), moderate cancer-specific distress (M = 18.04, SD = 17.61) and moderately positive (M = 2.49, SD = 0.70) and negative attitudes towards help seeking (M = 2.41, SD = 0.64). Intercorrelations between variables are reported in *Steginga et al.* [8].

Demographic and psychosocial variables that had significantly predicted the use of at least one service at Time 1 (see [8]) were identified for inclusion in the current analyses. To examine the additional contribution of psychosocial and attitudinal variables on support service use, these variables were entered after the demographic variables. Predictors were entered into a hierarchical logistic regression analysis predicting the use of any support service at Time 2: (1) age, gender, (2) social support, social constraints, and cancer-related distress, (3) positive attitudes to help seeking; and (4) negative attitudes to help seeking. The model accounted for 8.2% of the variance with gender and positive attitudes to help seeking significant individual predictors of support service use at Time 2 (see Table 1). Following the significant prediction of both behavioural intention at Time 1[2] and prospective support service utilisation by positive attitudes to help seeking, a mediation analysis was explored.

To examine mediation of the relationship between positive attitudes to help seeking and service utilisation by behavioural intention, a series of regression analyses were conducted. First, a logistic regression model regressing support service use on positive attitudes to help seeking was significant (OR = 1.91, CI = 1.26–2.90) and explained 3.1% of the variance in service use. Second,

a standard regression analysis revealed positive attitudes to help seeking was a significant predictor of behavioural intention ($b = 0.93$, CI = 0.84–1.02), with the model explaining 50% of the variance. When positive attitudes to help seeking and behavioural intention were entered together as predictors of support service use, positive attitudes to help seeking was no longer a significant predictor of service use (OR = 0.90, CI = 0.49–1.64) while behavioural intentions (OR = 2.19, CI = 1.40–3.42) and the overall model remained significant ($p < 0.000$, $R^2 = 0.072$; see Figure 1). As recommended in MacKinnon [16] for calculating a statistical test for mediation in logistical regression analyses, the product of coefficients ($\alpha\beta$) test was used and revealed a significant mediation effect ($z = 3.40$).

Discussion

Consistent with the TPB, behavioural intention mediates the relationship between positive attitudes towards help seeking and the uptake of psychosocial support services, prospectively. To our knowledge, this is the first study to demonstrate this relationship empirically in this behavioural domain. As in our earlier study [8], the most influential attitudinal variables were positive subjective norms and outcome expectations, with the effect of these mediated by behavioural intention. This further supports our earlier contention that interventions that seek to promote utilisation of such care services should target these variables at both an individual and system level. An individual approach might include marketing campaigns that focus on highlighting to patients and families the benefits of psychosocial care after cancer; and system approaches may include better training and incentives to encourage health professionals and treatment services to encourage utilisation of evidence-based psychological care. Additionally, positive subjective norms and outcome expectations may predict therapy compliance and future research could explore whether people with more positive attitudes are more likely to comply with psychological intervention regimes. Although the mediation of attitudes and service use by behavioural intentions was statistically significant, the proportion of variance accounted for in the model

Table 1. Hierarchical logistic regression predicting psychosocial support service utilisation

Step	Variable	OR (CI)
(1)	Age	0.99 (0.96–1.01)
	Female	2.73 (1.26–5.94)*
(2)	Social support	1.02 (0.94–1.09)
	Social constraints	1.46 (0.89–2.40)
	Cancer-specific distress	1.00 (0.98–1.02)
(3)	Positive attitudes to help seeking	1.69 (1.03–2.79)*
(4)	Negative attitudes to help seeking	0.86 (0.50–1.48)
	Total model	$\chi^2 = 23.58$, $R^2 = 0.082$**

OR, odds ratio; CI, confidence interval, *$p < 0.05$, **$p < 0.01$.
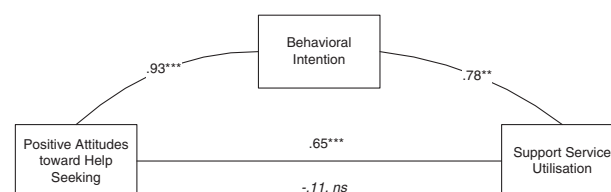

Figure 1. Mediation of positive attitudes towards help seeking and support service utilisation by behavioural intentions

was low. This suggests that other factors we did not assess may be influential. Additional research should consider the role of contextual variables, such as geographical location, in future studies.

Cancer-specific distress, social support and social constraints were not associated with the uptake of support services during the 6 months follow-up. The patients in the current sample reported high levels of social support and low social constraints, which may have limited the explanation of variability in support service uptake. The finding that cancer-specific distress was not a predictor of support service uptake is consistent with the results of Carlson et al. [17] who found that more than half of distressed cancer patients did not seek and did not intend to seek psychosocial support for their distress. Future studies may like to explore the potential barriers to support service use and the reasons that the patients give for not attending psychosocial support services.

A limitation of this study is the time frame in which patients were assessed. Specifically, most patients had completed treatment at the first assessment, and the need for support will have further declined for many over the subsequent 6 months as they moved further into the recovery phase. Replication of this methodology with baseline assessment at diagnosis is needed. However, unmet psychosocial care needs do persist over time for many people as they enter the survivorship phase of their cancer experience [2,18,19] and hence these findings have relevance for that group. In addition, it is possible that patients may have developed intentions to utilise psychosocial support services within the 6-month time frame selected for the study and this limitation is inherent in studies utilising the TPB and prospective designs. Finally, the development and validation of a theory based measure that is able to prospectively predict help seeking after cancer will help to further support research efforts to better explain why most people do not utilise psychosocial care services, despite the significant distress associated with the diagnosis, treatment and survivorship phases of the cancer trajectory [20].

Notes

1. Analyses including additional socio-demographic variables revealed no significant findings.
2. As the predictors of behavioural intention at Time 1 are reported in detail elsewhere [8], this analysis is not reported in this study.

Acknowledgements

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