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Mental health service use among those with depression: an exploration using Andersen's Behavioral Model of Health Service Use

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ABSTRACT

Background: Despite positive effects on prognosis, less than half of the people diagnosed with depression access mental health services. Knowledge of what promotes such service use is limited. There is dispute about whether the receipt of mental illness related information encourages or discourages service use among those with depression. Accurate service use models are needed to inform programs designed to facilitate service use by those who would benefit most. We examine the appropriateness of Andersen's Behavioral Model of Health Service Use in this context.

Method: Data from 451 adults identified through the Australian National Survey of Mental Health and Wellbeing as meeting International Classification of Diseases Ten (ICD-10) criteria for depression were used.

Results: Confirmatory factor analysis failed to verify Andersen's model. Thus, an empirically derived service use model was developed using exploratory factor analysis and then structural equation modelling. Mental health need was the strongest predictor of service use and the model suggested the importance of social connectedness in promoting service use. Participants who had received helpful mental illness information were significantly more likely to have accessed mental health services than those who had not.

Limitations: The cross-sectional design and lack of replication preclude definitive conclusions

Conclusion: Andersen's model is a useful starting point for the exploration of service use among people with depression. It is necessary, however, to develop specific models for this population.

1. Introduction

Depression is a major cause of disability, accounting for 4.4% of the global burden of disease (National Collaborating Centre for Mental Health, 2010; World Health Organization, 2012). However, only 10–50% of people with depression access mental health services (Burgess et al., 2009). When people with depression receive treatment consistent with best-practice guidelines, they experience reduced symptoms (Khan et al., 2012; Krogsbøll et al., 2009), a diminished risk of relapse (National Collaborating Centre for Mental Health, 2010) and an improved quality of life (Wells et al., 2000). If more people were to access mental health services, and receive appropriate treatment, the burden resulting from depression could be substantially reduced. Efforts to promote such service use among those with depression will be enhanced if they are based on accurate models.

1.1. Andersen's Behavioral Model of Health Service Use

The most frequently cited model of health service use, Andersen's Behavioral Model of Health Service Use, was constructed to describe the general health service use of those living in the United States of America (Andersen and Newman, 1973). The variants of Andersen's model have proven very versatile as they have been successfully used to explain service use among homeless populations (Gelberg et al., 2000; Solorio et al., 2006) and to understand what differentiates elderly people who attend emergency departments and those who do not (McCusker et al., 2003). While various versions of the model have been presented (Andersen, 1995) all suggest that health service use is a function of predisposing characteristics (including gender, age and health beliefs), enabling characteristics or resources that facilitate access to health services (such as wealth, social support or community

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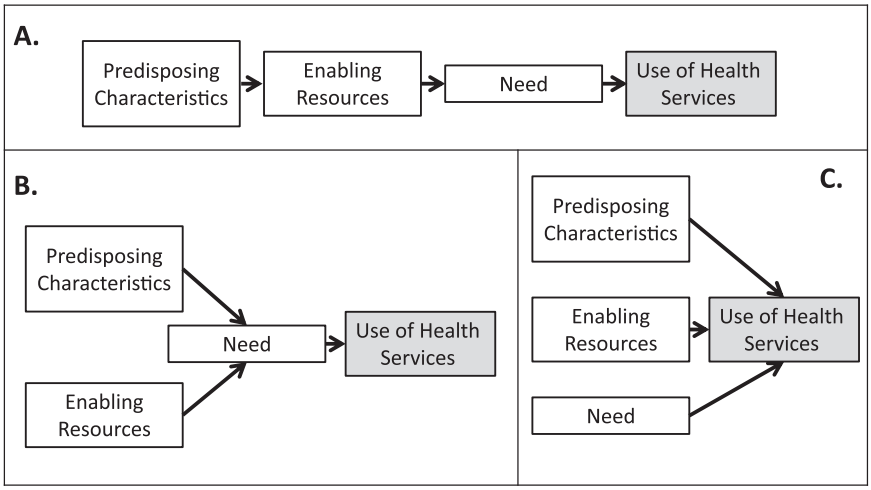

Fig. 1. Various configurations of Andersen's Behavioral Model of Health Service Use.

characteristics) and, most importantly, need; according to the model no one seeks out health services unless they perceive that they are unwell and need help.

There is some contention about the relationships among these categories. Fig. 1 portrays three of the different ways in which these relationships have been depicted. Part A shows Andersen's initial depiction of the relationships (Andersen and Newman, 1973). Part B depicts Stiffman et al. (2001) interpretation of the model and part C displays the version Andersen suggested when discussing equitable and inequitable access to services (Andersen, 1995).

Babitsch et al. (2012) conducted a systematic review of studies that had used Andersen's model to explore general health service use. These authors found inconsistencies in the categorisation of certain variables as predisposing or enabling characteristics and wide variation in the models depicted in the 16 identified papers. Accordingly, they concluded that the study context and sample characteristics were important. Thus it is necessary, in different contexts, to determine how the predictor variables suggested by Andersen's model combine to form higher order constructs, and then to determine how these higher-order constructs relate to service use.

In prior work which used Andersen's model in the context of depression (e.g. Carragher et al., 2010a; Choi et al., 2013; Cook et al., 2014; Gagné et al., 2014) the implicit assumption was that a model constructed to describe general health services use among the wider population also describes the use of mental health services among those with depression. The validity of this assumption is unclear. Furthermore, the majority of prior work used regression techniques to predict service use, an approach which does not allow for a detailed exploration of the nature of the relationships among the predictor variables. In two of the papers clustering techniques were used (Carragher et al., 2010b; Choi et al., 2006) but the focus of the clustering was the participant, not the predictor variables. Thus, despite the repeated use of Andersen's models we could find little research that examined whether and how the various predictor variables found to influence service use group together into higher order constructs which influence service use in this population.

1.2. Mental illness information

Andersen's model does not describe the influence that the receipt of illness information has on service use. Increasing mental health literacy or providing people with the knowledge that could be used to improve their own or another's mental health has become a crucial mental health promotion goal because it is seen as a way to promote service use (Jorm, 2012). Providing people with mental illness information is one of the methods used to increase mental health literacy (Jorm, 2012). Access to such information may be critical in determining whether or not an individual accesses mental health services.

Yet within the general health context there is debate about the effect that the provision of health information has on health service use. Between 1990 and 2016 all six published studies exploring the relationship between receipt of health information and health service use concluded that increased access to and use of health information was associated with increased health service use (Dwyer and Liu, 2013; Hsieh and Lin, 1997; Kenkel, 1990; Lee, 2008; Parente et al., 2005; Suziedelyte, 2012). Consequently, theorists have suggested that poorly informed consumers underestimate the benefits of health services and therefore use them less (Dwyer and Liu, 2013).

Recently, however, health economists examining data from the Swiss Health Survey found seemingly contradictory evidence, suggesting that receipt of health information has a negative relationship to health care use (Schmid, 2013, 2014). Moreover, findings from the Healthwise Community Project (Wagner and Greenlick, 2001; Wagner et al., 2001a, 2001b; Wagner and Jimison, 2003), in which residents in Boise, Idaho were provided with free health information and access to a toll-free nurse consultation service, suggest residents relied less on health professionals for their health care information, used fewer paediatric health services and fewer emergency department services than did residents in the two control sites. The authors speculated that health information was used as a substitute for health services, rather than promoting help-seeking. It is important to determine whether, among people with depression, the provision of mental illness information is being used to complement or as a substitute for formal mental health services.

1.3. The current study

Using data from the most recent Australian National Survey of Mental Health and Wellbeing (NSMHWB) from respondents who had a depressive episode, we will; 1) examine the relationships among our selected variables to identify the underlying factors and determine whether, as Andersen's model suggests, the variables group into predisposing characteristics, enabling characteristics and mental health need; 2) use structural equation modelling techniques to establish a model of the relationships among the identified factors and mental health service use; 3) examine whether the identified model of service use differs for people who had and had not received helpful mental illness information.

2. Method

Data from the National Survey of Mental Health and Wellbeing