Psychological models of health

Module Title: Sociology and Psychology and Public Health

Part 1 Literature Review

Health behaviour can be described as behaviour aimed to prevent or detect disease (Kasl and Cob, 1966). Models of health behaviour have been developed to understand how people make decisions about their health and predict the likelihood that health behaviour change will occur. This essay will aim to review a number of established health behaviour models focusing on Cognition Models, Social Cognition Models and Stage Models in relation to public health and health promotion interventions.

Cognition Models

The Health Belief Model (HBM) is a cognition model originally developed by Hochbaum in the 1950’s with later versions of the model being added in the 70’s (Rosenstock 1966; 1974) (cited by Conner and Norman, 2008/2005). The HBM is based on the probability that individuals are influenced by a threatened disease or illness based on a belief that they are vulnerable to a condition; there would be consequences of the condition if no action was taken; that they can prevent a condition developing by taking action; or the benefits of reducing risk of developing a condition are greater than the cost of taking action (add reference). This model was originally developed to predict the participation in screening tests and vaccination programmes with the focus on single preventative behaviours, more recently it has been used in areas of lifestyle behaviours which may sometimes involve life-long behaviours (Baranowski, Cullen, Nicklas, Thompson, & Baranowski, 2003) various studies such as Abraham and Sheeran (1994) have questioned the

appropriateness of using the HBM as a perceived threat to motivate behaviour with some groups, for example, groups of children and adolescent who assume they will live forever (Baranowski et al., 2003).

Other critiscisms of the HBM are that it is too focused on the individual and does not consider social, economic and emotional factors (Strecher et al, 1997).

In response to criticism the HBM has been adapted to include self-efficacy and health motivation (Ogden, 2012).

The Protection Motivation Theory (PMT) developed by Rogers 1975/1985 (cited in Ogden, 2012 pg 50), expands on the Health Belief Model with the addition of emotional factors such as, introducing an element of fear. The framework of PMT is based on using the appeal of fear to influence attitudes and behaviours. The research for the model was centered on the fear-drive model which sees fear as a force by which to motivate trial and error behaviour (Conner & Norman, 2008/2005).

A study (Wu, Stanton, Li, Galbraith, & Cole, 2005) that used PMT to establish health motivation and risk involvement, was successful in using PMT to predict behavioural intention in a variety of behavioural areas such as, smoking cessation, exercise and diet, cancer prevention and condom protection to name but a few. PMT has not received the same level of criticism as HBM however, many criticisms of the HBM also relate to PMT, largely in that it does not allow for social and environmental factors (Ogden 2012, pg 52)

Social Cognition Models

The Theory of Reasoned Action (TRA) (Fishbein and Ajken, 1975) or in its extended form Theory of Planned Behaviour (TPB) (Ajken, 1988) are formed based on the idea that the greatest predictor of behaviour is of behavioural intention (Ogden, 2012). The TPB model is used widely in health fields (Armitage and Conner 2001; Taylor et al. 2007). In addition to attitudes, for example, exercise is fun and will improve my health, the TRA added subjective norms, using the perception of social pressure to perform a behaviour, for example, a desire to please others and gain approval. The TPB adapted the TRA model by adding a concept of perceived behavioural control, which is the individuals perception as to whether the behaviour will be easy or difficult, the concept is similar to Bandura's (1982) concept of self-efficacy (Conner and Norman, 2008/2005).

Both models are used in many areas of health promotion in relation to behaviour change, in current UK policy setting they can be found in exercise intentions; weight gain prevention and eating behaviour; addiction related behaviours; HIV prevention and condom use (Taylor, 2006).

The TRA model has been used to show patterns of behaviours such as fat, salt and milk intake whereas the TPB model was used to give details of attitudes and beliefs about starchy foods in the UK (Stubenitsky & Mela, 2000).

The TPB and TRA differ from the HBM and PMT models in that they have added an element of social and environmental factors by including normative beliefs. Criticisms of the TPB and TRA focus on methods used to

test theory and the extent at which they can predict behaviour (Ogden, 2012).

Stage Models

Transtheoretical Stages of Change Model and Precaution Adoption Process Model

The Transtheoretical model (TTM) was developed in the 1980’s by a group of researchers at the University of Rhode Island. TTM was first used in smoking cessation in studies carried out by DiClemente and Prochaska (1982), and is often referred to as simply the stages of change model. The model suggests that health related behaviour change occurs through five stages know as: Pre-contemplation; contemplation; preparation; action and maintenance (Conner and Norman, 2008/2005). Movement or transition through the stages is driven by self-efficacy (the confidence in oneself to change behaviour) and decisional balance (weighing up the costs or benefits to the behaviour), relapsing backward and forwards through the stages is also common (Morris, Marzano, Dandy and O’Brien, 2012). Since 1985 application of the TTM has influenced service planning, provision and training agendas at local, regional and national levels (Bunton, Baldwin, Flynn, & Whitelaw, 2000). Bunton et. al, (2000) remarks on the rise in popularity of the TTM. Examples of areas where TTM has been used include studies in the area of dietary changes, exercise and activity promotion, sexually transmitted disease and pregnancy prevention (cited in Morris, Marzano, Dandy and O’Brien, 2012). Limitations of the model have been suggested by Conner and

Norman (2008, pg 247) in that fundamental problems with the definition and measurement of the stages are present.

Precaution Adoption Process Model (PAPM)

First suggested by Weinstein (1988) and further refined by Weinstein and Sandman (1992) the Precaution Adoption Process Model (PAPM) specifies seven stages ranging from ignorance to maintenance of the behaviour. The first stage is, unawareness of issue; second, unengaged by issue; third, deciding about acting; fourth, deciding not to act; fifth, decided to act; sixth, acting; and finally seventh, the maintenance stage. Although similar in some ways, the difference between the PAPM and the TTM is the extra stages, PAPM has 2 additional stages which includes the decided not to act stage which makes a clear distinction between having never thought about adopting a precaution before and having thought about it but deciding not to act (Conner & Norman, 2008/2005). Other advantages of the PAPM are that it allows for messages to be tailored at each stage of the model which is helpful in situations where resistance to change is high and its simple questioning method makes it suitable for both individual and group settings, Weinstein & Sandman (2002), (The Free Library, 2014).

In summary each model has its own unique aspects

References

Abraham, C., & Sheeran, P. (1994). Modelling and modifying young heterosexuals' HIV-preventive behaviour; a review of theories, findings and

educational implications. *Patient Education and Counseling, 23* (3), 173-186. doi: http://dx. doi. org/10. 1016/0738-3991(94)90033-7

Armitage, E, C. J. & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: a meta-analytic review. British Journal of Social Psychology, 40, 471-99.

Baranowski, T., Cullen, K. W., Nicklas, T., Thompson, D., & Baranowski, J. (2003). Are Current Health Behavioral Change Models Helpful in Guiding Prevention of Weight Gain Efforts? *Obesity Research, 11* (S10), 23S-43S. doi: 10. 1038/oby. 2003. 222

Becker MH. The health belief model and personal health behavior. Health Education Monographs. 1974; 2: 324-473.

Bunton, R., Baldwin, S., Flynn, D., & Whitelaw, S. (2000). The ‘ stages of change’ model in health promotion: Science and Ideology. *Critical Public Health, 10* (1), 55-70. doi: 10. 1080/713658223

Morris, J., Marzano, M., Dandy, N. & O’Brien, L. (2012). Theories and models of behaviour and behaviour change. *Forest Research* , Theories: Behaviour Change Report

Rosenstock IM. The health belief model: explaining health behavior through expectancies In: Glanz K, Lewis FM, Rimer BK, eds. Health Behavior and Health Education: Theory, Research, and Practice.

Stretcher, V., & Rosenstock, I. M. (1997). The Health Belief Model. In K. Glanz, F. M. Lewis, & B. K. Rimer (Eds.) *Health Behaviour and Health*

Education : Theory, Research and Practice (2 nd ed.). San Francisco: Jossey-Bass.

Stubenitsky K, Mela DJ (2000) UK consumer perceptions of starchy foods. British Journal of Nutrition 83: 277-285.

Taylor, D., Bury, M., Campling, N., Carter, S., Garfield, S., Newbould, J. & Rennie, T. (2007). A Review of the use of the Health Belief Model (HBM), the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and the Trans-Theoretical Model (TTM) to study and predict health related behaviour change.

Taylor, D., (2006). Review of the use of the Health Belief Model (HBM), the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and the Trans-Theoretical Model (TTM) to study and predict health related behaviour change. The Department of Practice and Policy. The School of Pharmacy, University of London

The Free Library, *Precaution Adoption Process Model* : need for experimentation in alcohol and drug education.. (n. d.) > The Free Library. (2014). Retrieved Jan 15 2015 from: http://www. thefreelibrary. com/Precaution+Adoption+Process+Model %3a+need+for+experimentation+in…-a0169677077

Wu, Y., Stanton, B. F., Li, X., Galbraith, J., & Cole, M. L. (2005). Protection Motivation Theory and Adolescent Drug Trafficking: Relationship Between Health Motivation and Longitudinal Risk Involvement. *Journal of Pediatric Psychology, 30* (2), 127-137. doi: 10. 1093/jpepsy/jsi001

Part 2 Case Study

This case study is based on Chris, a 40 year old man. Chris is aware he has some health issues. However, recent marital breakdown has resulted in a disruption to his home and family life and he is lacking the motivation and self confidence to make positive changes which he knows will benefit his health. I will look at how applying health psychology can be used to motivate and change Chris's behaviour. The notion of motivation and self-efficacy can be found in most models of health behaviour (Ogden, 2012). Since Chris is already aware of his health situation and has made some steps i. e. visiting the doctor, to discuss his symptoms and circumstances, therefore, the Transtheoretical Stages of Change Model will be what I am focusing on during this case study.

Based on the five stages of change of the Transtheoretical change model Chris would be between stage 1 Pre-contemplation and stage 2 Contemplation. The main aim will be to get Chris from the Contemplation stage to the Preparation stage and beyond.

At this Pre-contemplation-Contemplation stage motivational interviewing may be helpful. Chris has children whom he sees at the weekend, children are a great excuse for exercise. Talk about the health behaviours that impact the children exercise/diet, they have a sedentary lifestyle when they visit, this would be an ideal time to engage with Chris and get him to address the lack of exercise, poor diet by using the time he spends at the weekend with the children. Questions such as, what other activities would you and the children enjoy? Encourage and motivate through listening to Chris's own

motivations for change. By working through decisional balance, helping Chris to see how the pros of lifestyle behaviour change can outweigh the cons. With each stage self-efficacy will improve helping to motivate Chris to abstain from unhealthy patterns.

What needs to be changed? Setting the agenda – there are several factors that Chris faces, many which could be improved by diet, exercise and smoking, but social and emotional factors must be taken into consideration. Through motivational interviewing Chris can identify what his priorities are. This is also a good time to provide advice based on health statistics, for instance combining smoking with a healthier diet and more exercise will reduce his risk of coronary heart disease (NHS Choices). Adopting an exercise pattern into daily life can reduce blood pressure, (Blood Pressure UK) easier to start off with small exercise sessions and build up gradually.

Areas for management Plan to include:

Exercise: Suggest exercise plan which includes family activities, swimming, cycling (NHS. UK/livewell/fitness), (NHS. uk/letsgetmoving)

Diet: Cut down on takeaways, suggest alternative treats to replace the usual weekend takeaway food, and cooking together with the children a great way to learn and motivate, provide nutritional information/guidelines for salt, fat and sugar intake and suggest ways to set achievable targets

Smoking: Cutting down on smoking to reduce major health risks

Social: To join fitness clubs based on interests and ability

References

Blood Pressure UK

http://www. bloodpressureuk.

org/BloodPressureandyou/Yourlifestyle/Beingactive

NHS Choices. Coronary Heart Disease Preventionhttp://www. nhs.

uk/Conditions/Coronary-heart-disease/Pages/Prevention. aspx

1