

Need for Information and Psychological Correlates among Patients with Cardiovascular Diseases



Correspondence to: e.cappelletti4@campus.unimib.it

Erika Cappelletti, Marco D'Addario, Andrea Greco, Maria Elena Magrin, Massimo Miglioretti, Dario Monzani, Luca Pancani, Marcello Sarini, Marta Scignaro, Luca Vecchio and Patrizia Steca
Department of Psychology, University of Milano Bicocca, Piazza dell'Ateneo Nuovo 1, Milan, Italy

ABSTRACT

Several studies on chronic diseases have underlined the need for personalized healthcare, taking into account patients' information needs and preferences, to support their proactive health management. However, little research has been conducted to determine cardiovascular disease patients' information needs and the psychological factors associated with these needs. Our study aimed to explore the priorities and the correlates of information needs among patients with coronary disease. 357 newly diagnosed patients with acute myocardial infarction or acute coronary syndrome completed a questionnaire which assessed different psychological factors and the need for further information on six topics related to disease management. Descriptive analyses were conducted to identify information needs; correlation analysis were conducted to explore the relationship between need for information and psychological factors. Overall, patients wanted to be extensively informed in each domain; the key information need was for a full understanding of the disease, while information about behavioral habits emerged as a minor theme. Correlations between Coping Strategies, Anxiety, Orientation to Happiness, Psychological Well-being and Need for Information were found. In particular, Adaptive Coping Strategies were positively associated with the need for further information about Pathology. Anxiety was positively associated with the need of information on Distress Management and Risks And Complications of the disease, whereas it was negatively associated with information about Behavioral Habits. Orientation to happiness was negatively associated with information on Behavioral Habits and Daily Life Activities, while Psychological Well Being was correlated with information about Pathology, Behavioral Habits and Distress domains.

Taking into account the information needs and the relationships between these and the psychological factors could enhance quality of chronic disease management, leading health-care system to move toward a patient-tailored care.

BACKGROUND

Cardiovascular diseases (CVDs) are currently the largest single contributor to global mortality and will continue to dominate mortality trends in the future (1). Even if it is well known that modifiable factors related to lifestyle habits are major contributors to CVDs (2-6), patients generally fail to adhere correctly to medical advice or to change their unhealthy behaviors, provoking continuous hospital readmissions (7). Literature has shown that the effective provision of appropriate health information is associated with better patient adherence to medical prescription (8), it increases patient's satisfaction, reduces levels of psychological distress, and enhances perception of control of the disease (9-11). Several studies have underlined the need for personalized healthcare, taking into account patients' information needs and preferences, to support their proactive health management; however, little research has been conducted to determine CVD patients' information needs from a patient perspective and the psychological factors associated with these needs. Our study aimed to explore the priorities and the correlates of information needs among patients with coronary disease.

OBJECTIVES

TO IDENTIFY INFORMATION NEEDS IN PATIENTS AFFECTED BY CORONARY DISEASE

TO EXPLORE PSYCHOLOGICAL CORRELATES OF INFORMATION NEEDS

METHOD

PARTICIPANTS: 357 newly diagnosed patients with acute myocardial infarction or acute coronary syndrome (mean age=56.8 years; age range=35-75; SD=7.9; 85% men) completed a questionnaire which assessed:

INFORMATION NEEDS ON:

Pharmacological Treatment
Pathology
Daily Life Activities
Behavioral Habits
Distress
Risk And Complication

PSYCHOLOGICAL FACTORS:

Orientations to Happiness Scale (OTH; Peterson et al. 2005)
Brief COPE (Carver, C. S. 1997)
Hospital Anxiety and Depression Scale (HADS; Zigmond and Snaith 1983)
Psychological Well Being Scale (PWB; Ryff, 1989)

DATA ANALYSIS: Descriptive analyses were conducted to identify information needs; correlation analysis were conducted to explore the relationship between need for information and psychological factors. All the analysis were conducted using SPSS, version 20.

FINDINGS

Figure 1- Patients' Information Needs (Range 1-30)

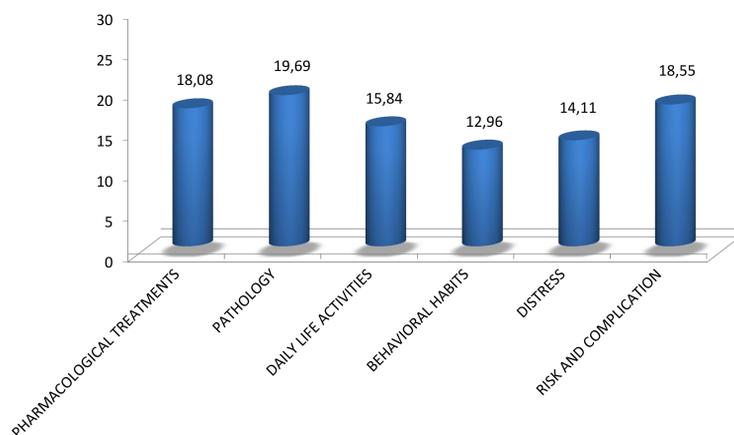


Figure 2- Pearson Correlations between Information Needs and Psychological Factors

	ADAPTIVE COPING STRATEGIE	ORIENTATION TO HAPPINESS	PSYCHOLOGICAL WELL-BEING	ANXIETY
PHARMACOLOGICAL TREATMENT	-.012 .825	.043 .429	.045 .406	-.021 .704
PATHOLOGY	.107* .049	.085 .118	.161** .003	-.009 .871
DAILY LIFE ACTIVITIES	.018 .740	-.118* .030	-.028 .608	.065 .231
BEHAVIOURAL HABITS	.074 .178	-.123* .026	.124* .025	-.147* .008
DISTRESS	.054 .329	-.038 .491	-.109* .048	.150** .006
RISK AND COMPLICATION	.089 .101	.052 .333	-.016 .766	.113* 0.36

* $p < .05$ ** $p < .01$

DISCUSSION

Overall, patients wanted to be extensively informed in each domain; the key information need was for a full understanding of the disease, while information about Behavioral Habits emerged as a minor theme.

Correlation between Coping Strategies, Anxiety, Orientation to Happiness, Psychological Well-being and Need for Information were found. In particular, Adaptive Coping Strategies were positively associated with the need for further information about Pathology. Anxiety was positively associated with information needs on Distress Management and Risks And Complications of the disease, whereas it was negatively associated with information about Behavioral Habits. Orientation to happiness was negatively associated with information on Behavioral Habits and Daily Life Activities, while Psychological Well Being was correlated with Pathology, Behavioral Habits and Distress domains.

Not all patients want and need the same information in order to understand how to adaptively manage their condition. Taking into account the information needs and the relationships between these needs and the psychological factors could enhance quality of chronic disease management, leading health-care system to move toward a patient-tailored care.

Individualized cardiac education programs are essential in achieving optimal self-disease management and sought health outcomes for patients with CVDs; however, to design effective education programs, it is necessary to integrate patients' perceptions of what they need to know and to understand which psychological factors are associated with particular needs. Patients' assessment of their own needs and preferences could be integrated into routine clinical assessment in order to develop a health care practice in which the patient is considered a collaborative partner.

REFERENCES

- [1] WHO 2014 World health statistics 2014. Geneva: World Health Organization.
- [2] Yusuf S, Hawken S, Ounpuu S, et al. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. *Lancet* 2004;364:937-52.
- [3] Clarke R, Emberson J, Fletcher A, Breeze E, Marmot M, Shipley MJ. Life expectancy in relation to cardiovascular risk factors: 38 year follow-up of 19,000 men in the Whitehall study. *BMJ* 2009;339:b3513.
- [4] Lopez-Jaramillo P, Silva SY, Rodriguez-Salamanca N, Duran A, Mosquera W, Castillo V. Are nutrition-induced epigenetic changes the link between socioeconomic pathology and cardiovascular diseases? *American Journal of Therapeutics* 2008;15:362-372.
- [5] Anand SS, Yusuf S, Vuksan V, Devanese S, Teo KK, Montague PA, Kelemen L, Yi C, Lonn E, Gerstein H, Hegele RA, McQueen M. Differences in risk factors, atherosclerosis, and cardiovascular disease between ethnic groups in Canada: The Study of Health Assessment and Risk in Ethnic groups (SHARE). *Lancet* 2000;356:279-284.
- [6] Anand SS, Islam S, Rosengren A, Franzosi MG, Steyn K, Yusufali AH, Keltai M, Diaz R, Rangarajan S, Yusuf S. Risk factors for myocardial infarction in women and men: Insights from the INTERHEART study. *European Heart Journal* 2008;29:932-940.
- [7] Strömberg A. The crucial role of patient education in heart failure. *European Journal of Heart Failure* 2005;7:363-369.
- [8] Osterberg L, Blasche T. Adherence to medication. *N Engl J Med* 2005;353:487-96.
- [9] Clark PA, Drain M, Gesell SB, Mylod DM, Kalenberg DO, Hamilton J. Patient perceptions of quality in discharge instruction. *Patient Educ Couns* 2005;59:56-68.
- [10] Booth K, Beaver K, Kitchener H, O'Neill JO, Farrell C. Women's experiences of information, psychological distress and worry after treatment for gynaecological cancer. *Patient Educ Couns* 2005;56:225-32.
- [11] Prinjsa S, Chapple A, Herxheimer A, McPherson A. Many people with epilepsy want to know more: a qualitative study. *Fam Prac* 2005;22:435-41.