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Health Literacy and Health Risk Behaviors among Cancer Patients

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Abstract: *Cancer is accounted as serious problem that affects people all over the world. Cancer is becoming more common in Pakistan as a result of a lack of health facilities, limited medical equipment, and a lack of doctors with specialized knowledge. The link between health risk behavior and health literacy among cancer patients is investigated in this study. Patients from four government sector hospitals in Punjab, Pakistan, were recruited randomly to provide the data. The data was gathered using a well-structured questionnaire. Critical health literacy (r =.469**), communicative (r =.660**), Functional (r =.370**), and health risk behaviour were discovered through correlation analysis.*

Key Words: Cancer, Health literacy, Correlation

Introduction

Health-related education reduces health risks and improves the well-being. Any activity conducted to detect and prevent the disease from promoting health and well-being is classified as a health risk behaviour. Interest in behaviours that have a substantial impact on well-being and health is based on a couple of assumptions: first, that individual conduct is responsible for a significant share of mortality from the primary causes of death. Second, this kind of behaviour can be changed. (Norman and Conner, 1996). According to a prior study, the conduct has a direct impact on an individual's health in three ways: it causes immediate biological changes, it communicates or protects against health hazards, and it facilitates early disease detection and treatment (Baum and Posluszny, 1999).

As a result of these dangerous behaviours, the prevalence of non-communicable diseases (NCDs) such as stroke, heart attack, cancer, diabetes, and chronic lung failure has skyrocketed, accounting for almost 70% of all deaths globally (CDC,2019). Throughout adolescence, many health-harming (such as smoking, drinking) and health-promoting (such as physical activity) behaviours are acquired and frequently persist throughout adulthood. (1983, Achenbach). According to the World Health Organization, risk behaviours (excessive alcohol consumption, smoking, reckless driving, and illicit drug use) began during adolescence and account for 70% of early deaths among adults due to non-communicable diseases (Ali, 2009). The most commonly assumed habits in this group are watching playing video games, watching television, smoking, hitting others, drinking alcohol, swearing as well as lack of sleep, throwing objects, vandalism, and inactivity (Brenner et al., 2004; Currie, Samdal, Boyce and Smith, 2001).

Cancer is the second largest reason of death throughout the globe, killing an estimated 9.6 million people each year (WHO, 2018). On a global basis, cancer kills one out of every six people. In low- and middle-income nations, cancer is responsible for more than 70% of deaths. The five most influential dietary and behavioural risks, which include a high body mass index, a low vegetable and fruit intake, limited physical exercise, cigarette use, and alcohol use, account for one-third of cancer fatalities (Lim et al., 2013).

Health literacy refers to a person's capacity to communicate personal information to health care providers and decipher complex language (Evangelista et al., 2010). People's motivations, knowledge, and capacities to receive, grasp, assess, and utilize health knowledge in order to make

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decisions and judgments regarding healthcare, sickness prevention, and health advancements in order to improve their quality of life. It refers to people's motivation, knowledge, and capacities to access, comprehend, admire, and use health information to make healthcare, illness prevention, and health promotion choices in their everyday lives in order to preserve or promote quality of life (Sørensen et al., 2012). Health literacy could have a major impact on health outcomes (Kickbusch, 2013). It encourages individuals and provides them a preventative healthcare facility to engage in healthy health behaviours by discouraging them from engaging in activities that are harmful to their health (Watson, 2011; Greenhalgh, 2015).

However, the goal of this study is to examine the link between communicative, critical, functional health literacy and health risk behaviour.

Methodology

The present research was quantitative in nature. The data was acquired from cancer hospitals Mayo Hospital Lahore, Allied Hospital Faisalabad, Anmol Hospital Lahore, and Jinnah Hospital Lahore. To reach the productive results, 407 participants were resurrected utilizing a simple random sampling approach. SPSS was used to enter the data gathered. Correlation analysis, on the other hand, was utilized to investigate the relationships between the constructs in this study.

The questionnaire for this study has three parts: the first part is about the demographic characteristics of the participants (see Table 1), and the second part is about health literacy questions. The Nutbeam (2007) study was used to create the health literacy questionnaire, which comprised of 30 items. The items were rated (Never to Always). The third section addresses issues with health-risk behaviour. The health risk behaviour questionnaire was created based on prior research. There were 20 questions in this survey, ranging from Never to Always.

Data Analysis

The cancer patient's demographic profile is shown in Table 1. Males made up 54.8 percent of the responders, according to the statistics. 45-54 year olds account for 25.6 percent of the responses. A high school diploma was held by 33.9 percent of the respondents. 45.9% of the population had a monthly income of between 2000 and 4000 dollars. Breast cancer patients made up 19.7% of the responders.

Table 1. Socioeconomic Characteristics of the Participants

Demographics	Response Category	Frequency	Percentage (%)
Gender			
	Female	184	45.2
	Male	223	54.8
Education			
	≤ Primary	97	23.8
	High School	138	33.9
	Intermediate	76	18.7
	Graduation	54	13.3
	Master & Above	42	10.3
Monthly household income in (PKR)			
	Below 20000	115	28.3
	20,001-40,000	187	45.9
	40,001-60,000	59	14.5
	60,001-80,000	40	9.8
	80,001- above	6	1.5
Education			
	≤ Primary	97	23.8
	High School	138	33.9
	Intermediate	76	18.7
	Graduation	54	13.3
	Master & Above	42	10.3
Type of Cancer			
	Urinary Bladder	9	2.2
	Brain	14	3.4

Demographics	Response Category	Frequency	Percentage (%)
	Lymphoma	33	8.1
	Liver	18	4.4
	Cervix	19	4.7
	Lungs	45	11.1
	Lip/Oral Cavity	43	10.6
	Breast	80	19.7
	Others	146	35.9
Age in years			
	15-24	12	2.9

The standard deviation and mean of critical, communicative, functional health literacy, and health risk behaviour among cancer patients are shown in Table 2. The results show that health risk behaviour has the highest standard deviation and mean (SD = 15.010, Mean = 76.073), followed by communicative health literacy (SD = 8.648, Mean = 50.366), functional health literacy (SD = 6.870, Mean = 37.0186), and functional health literacy (SD = 8.648, Mean = 50.366). Critical health literacy accounts the lowest standard deviation and means (SD = 4.417, Mean = 21.339), according to the findings. The greater the mean value, the more the respondents agreed with the question's statements.

Table 2. Standard deviation and Mean and of critical, communicative, functional, critical health literacy, and health risk behavior

Constructs	Maximum	Minimum	SD	Mean
Health Risk Behavior	110	26	15.010	76.073
Functional Health Literacy	50	13	6.870	37.186
Critical Health Literacy	30	6	4.417	21.339
Communicative Health Literacy	69	16	8.648	50.366

The correlation study of the link between communicative, functional, and critical health literacy and cancer paticipants' health risk behaviour is shown in Table 3. Functional health literacy shows a substantial connection with critical health literacy (r =.248**), and communicative health literacy (r =.240**), according to the findings. Critical health literacy also has a strong relationship with communicative health literacy (r =.543**). The results also show communicative (r =.660**), functional (r =.370**), critical health literacy (r =.469**), and health-related behaviour (r =.469**).

Table 3. Correlation between Critical, Communicative, Functional, Health Literacy and Health Risk Behavior

Constructs	FUHL	COHL	CRHL	HRB
FUHL	-			
COHL	.240**	-		
CRHL	.248**	.543**	-	
HRB	.370**	.660**	.469**	-

Discussion and Conclusion

The goal of this investigation is to explore the link of health literacy with health risk behaviour. Health literacy is categorized into three types (Nutbeam, 2007): critical, communicative, functional, and health literacy. People with limited health literacy are more possibly to participate in risky behaviors like drinking, smoking, using illegal use of drugs, and leading a sedentary lifestyle, according to a previous study. People with a limited level of health literacy may be more distrustful of medical advice, resulting in less beneficial health behaviours (Lee et al., 2004). Low health literacy is linked to a number of negative health outcomes, including increased mortality, poor overall health, limited access to healthcare, increased health care costs, hospitalizations, and emergency room visits (DeWalt et al., 2004). It has also been linked to increased difficulty participating in collaborative decision-making, as well as a general decline in medication adherence and self-management (Berkman et al., 2011; DeWalt et al., 2004; Easton, Entwistle, Williams, 2010). In addition, poor health literacy is more common among the elderly, individuals of low socioeconomic status, and members of minority groups (Heide et al., 2013; Berkman et al., 2011), and is well acknowledged as a major contributor to health disparities (Sudore, Mehta, Simonsick, 2006).

Functional health literacy assumes a person's ability to comprehend and the health-related information in order to act on it, and it is a necessary skill for the everyday job (Nielsen, 2004). The findings of this study reveal that functional health literacy and health risk behaviour have a substantial relationship. This finding is consistent with earlier research. For example, several research has linked a lack of health literacy to physical inactivity (Bostock et al., 2012), and sedentary behaviour (Bostock et al., 2012). Adults who do not meet physical activity guidelines have been related to a lack of health literacy (Geboers et al., 2014). Low functional health literacy has been connected to poor health, medical information, and preventative healthcare treatments, a limited understanding of medical conditions, as well as increased hospitalization and expenditures (Thai & George, 2010; Ickes & Cottrell, 2010; Baker et al., 2002). Poor health knowledge is an alarming public health hazard linked to the socioeconomic gradient and health inequities, in addition to adverse health results (Berkman et al., 2011). Individuals with a low level of health literacy are more prone to engage in poor lifestyle choices. These people are usually less educated, poorer, older, and come from a variety of ethnic backgrounds (VonWagner et al., 2007; Adams et al., 2013; Rowlands et al., 2015).

Communicative health literacy is the knowledge of numerous health domains that develops decision-making skills, individual problem-solving and allows one to operate independently in various health dimensions (Nielsen, 2004). The findings of this study show a strong link between health risk behaviour and communicative health literacy. This discovery is in line with previous research. The result of the link of CHL with handwashing behaviour has previously been proven in elderly people in Hong Kong (Or et al., 2020), youth in the Norway region (Riiser et al., 2020), and ICU visits in the Thailand region (Riiser et al., 2020). (Riiser et al., 2020). According to Buja's comprehensive review, prior investigations in several regions have found a beneficial link of physical activity with communicative health knowledge. Two researchers in the United States, Stewart et al. (2013) and Marie et al. (2014), reported the same conclusions about the relationship between smoking behaviour and FHL status, however, Hoffman et al. (2017) obtained different results in Guatemala (Stewart et al.,2013; Marrie et al.,2014; Hoffman et al.,2017). Alcohol intake is influenced by FHL status, according to Chisolm et al. (2014), and Amoah et al. (2019). Individuals' ability to critically analyze information regarding health issues and health-related features using more advanced cognitive and intellectual skills is referred to as critical health literacy (Nielsen, 2004). According to the findings of this study, there is a significant link between CHL and health risk behaviour. There is no evidence in the literature to substantiate this association. Future research can be used to modify the relationship.

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