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Impact of Oral Cancer on Mental Health

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Abstract: **Oral cancer is the sixth most prevalent cancer in the world. The symptoms interfere with the patient's everyday life in numerous physical and mental ways, resulting in psychological issues and a deterioration in life quality. The mental health of these patients' caregivers is also at stake since their obligation to care for them may become a burden. Most patients had a low quality of life and were emotionally upset prior to surgery due to a lack of social-emotional support. A family caregiver offers care to a loved one who is afflicted with a terrible illness, such as oral cancer. In addition to giving physical care, they offer their close relatives emotional and financial assistance. They may include the patient's spouse, offspring, and siblings. This research intends to investigate the psychosocial challenges that oral cancer patients and their caregivers confront. The reviewed literature determined that it is essential to address the psychological requirements of oral cancer patients and that psychological counseling should be incorporated into their treatment plan. Caregiving is a demanding occupation. Numerous studies suggest that special attention should be paid to educating caregivers for oral cancer patients by providing them with enough understanding of the illness process and its implications, as well as counselling services to address the various psychological requirements of the patients.**

Keywords: **Oral cancer; mental health; depression; anxiety; caregivers.**

I. INTRODUCTION

People who are diagnosed with oral cancer must confront various difficulties, including problems with mental health and quality of life [1]. There are several factors which contribute to these issues, such as physical symptoms or stigmas on social and cultural senses [2]. This might make them feel left out, and would lead to the fall in patients' motivations and compliance [3]. Caregivers are people who look after the patients [4]. Generally, they would be family members [4]. Although physical care is their main focus, they also assist the patients in the mental and financial fields [5]. However, having close contact with the patients can affect the caregivers psychologically [6]. Researches indicate that depression, anxiety, and fear of losing their beloved one are issues which usually occur [7]. Oral cancer patients who have severe symptoms find it hard to perform some daily tasks, so their beloved ones must step in and assist them on these matters [8]. In spite of that, being granted much responsibility at once might become a burden [8]. Caretakers usually care more about the patient than themselves, and it can lead to a decline in both physical and mental health [9, 10]. Being a caretaker consistently can result in psychosocial issues [11]. Stress, anxiety, and depression are frequent problems which are also frequently ignored [12, 13]. A lot of research about quality of life that has been done focuses mainly on cancer patients, but there is not much which states the difficulties of caretakers [14]. Therefore, this study purposes to explore the psychological issues people must face when oral cancer occurs, whether they be the patient or caretaker. Also, to build more understanding on the impacts on mental fields, the consequences of those symptoms, and ways to deal with them.

II. ORAL CANCER

Oral cancer initiates from abnormal cells' division and lack of elimination in the oral cavity [15]. They are normally displayed as wounds or tumors which last longer than 14 days [11, 16]. Smoking, alcohol use, and the human papillomavirus number 16 (HPV 16) are some of the causes of genetic changes which could lead to oral cancer [17]. Screenings are usually done by dental hygienists as a preventative operation, but these examinations might not be able to discover oral cancer in its initial stages [18]. They are mostly identified in the terminal phases, as a result of the symptoms

appearing only in obscured areas [19]. It is when the illness expands to other sites that it is detectable [11]. Dental hygienists do not only practice oral cancer screening, as they assist with relieving the painful effects of chemotherapy and preserving oral hygiene [20]. Chemotherapy is the act of using chemical drugs to terminate erratic cells and its division [21]. It can cause lots of unpleasant effects such as bleeding, dry mouth, and oral mucositis, a condition when red patches, ulcers, or both appear on the patient's mucous membrane [22]. This kind of treatment can harm the patient's immunity, so providing prophylactic care is needed to prevent infections [22]. Furthermore, educating patients about preserving their own oral health during chemotherapy is also being done [20]. The most frequent effect of chemotherapy is oral mucositis [3]. Patients who are treated with chemotherapy experience nutrition deficiency and decline in quality of life, as the aggressive pain will make them feel unwilling to consume meals regularly [16, 23]. The psychological stress of this issue can also cause mental conditions such as sadness and anxiety [13]. These problems can poorly affect the patient's quality of life, so they should be cured as fast as possible [5, 10]. Dental hygienists should not only operate on preserving the patient's oral health, but also inform them the knowledge to do it by themselves, for example, taking enough nutritions and cleaning their oral cavity [8]. Dental hygienists can also assist in tempering the psychological distress by educating the patients about efficient coping mechanisms for worry and stress [13]. Oral cancer patients suffer from physical and mental matters [24]. The moral commitment of dental hygienists is to care for the patient's oral health and enhance their quality of life [25]. They are able to aid patients with psychological issues [4].

Oral cancer refers to cancer in areas of the oral cavity, oropharynx, mouth palate, floor, lips, cheeks, and parotid glands [18]. The global statistics shows that there are approximately 350,000 cases of oral cancer diagnosed each year, of which 180,000 cases result in death [2, 26]. It is the sixth most widespread cancer internationally [17]. Concerns are notable in Southeast Asia as a result of smoking, use of alcohol, and betel quid chewing [19]. Although cancer diagnosis and treatment has been improved, the 5 year survival rate of oral cancer patients has been frozen at 50% for many decades [27, 28]. There are two factors which define the majority of diseases, genetic and epigenetic [21, 29]. Oral cancer and salivary gland cancer are both influenced by tobacco, alcohol, viruses, diets, nutritions, radiation, genetics, ethnicity, oral thrush, mouthwash, syphilis, mates, occupational risks, immunosuppressives, and dental factors [25, 29]. More than 90% of oral malignant tumors are squamous cell carcinomas which initiate from the mucosal epithelium [8]. Nevertheless, these mucosal carcinomas obviously consist of many distinct diseases which might originate separately from different locations, prognosis, genesis, and treatment [21]. Cancer of the oral cavity should be differentiated from oropharyngeal carcinoma, as it is mainly associated with HPV infection, while oral cancer is rather affiliated with tobacco and alcohol use [15, 17].

III. PREVALENCE AND PREDICTORS OF ANXIETY AND DEPRESSIVE SYMPTOMS AMONG ORAL CANCER PATIENTS

The study investigated the prevalence and determinants of anxiety and depression symptoms in patients with oral cancer [2]. The prevalence of anxiety symptoms in the current study was 36.96% higher than previous studies [12, 30]. This study's prevalence of depressive symptoms was 65.21%, comparable to earlier findings among cancer patients and more significant than a meta-analysis on the prevalence of depression in Chinese adults with cancer patients (54.9%) [2]. A subsequent study of patients with oral cancer confirmed similar findings at various time intervals (at diagnosis, 1 month, and 3 months after treatment) [30, 31]. This phenomenon is especially evident in patients with oral cancer due to facial deformity and dysfunction, and it can be explained by the assumption that anxiety is likely caused by an immediate sense of insecurity, whereas depression is caused by a loss of hope for the future and a sense of purpose in life [11, 32].

Regarding socio-demographic characteristics, it was interesting to discover that married/cohabiting patients had a much higher probability of experiencing depressive symptoms than the unmarried group, contrary to prior research findings [33, 34]. However, the results of certain Chinese population-related studies are comparable to those of this study [2, 19]. Numerous "extended families" consisting of three or even four generations exist in China, along with a strong family notion, consanguinity, and family ethics [2]. Parents and children are always considered to be one family [26, 32]. Even after their children reach adulthood, it is natural for parents to support and serve them [35]. Generally, married people have a more extended family life [36]. In the contemporary cultural context of China, spouses and family members tend to provide greater care to ailing family members [2]. However, significant ailments will increase the strain on the entire family. Patients in this study are in the "old and young" age bracket, which is the economic pillar of the family [35]. The burden of the family's finances and the alteration of the family structure brought on by the patients will undoubtedly increase their distress [2]. In addition, cancer is such a taboo subject in China that it is commonly associated with uneducated and false social perceptions [2, 4].

Logical regression analysis revealed that perceived stress is connected with anxiety and depressive symptoms [16, 37]. Other studies revealed that the mental adjustment of cancer patients affected the sad and anxious symptoms of their disease [38, 39]. It may be explained by the fact that a cancer diagnosis is a stressful event for most people and that patients face mental stress such as anxiety about prognosis and therapies, disturbance of everyday functions, and survival time [6]. Therefore, for cancer-specialised nurses and clinicians, lowering stress may be a unique technique to alleviate poor mood in patients with oral cancer [35, 40].

Consistent with prior research, stigma, particularly the feature of social isolation, was related to both anxiety and depressive symptoms [6]. In addition to causing psychological suffering in patients, the stigma associated with a condition can also result in adverse health outcomes [32]. In this study, social isolation was strongly and positively related to depression symptoms [41]. Social isolation denotes anomie in the conventional sociological sense, which includes emotions of loneliness, inequality with others, and uselessness [34]. Patients with oral cancer are at a greater risk of stigma since the disease and its treatment frequently result in substantial alterations to their physical appearance and functioning [6]. These alterations affect an evident and socially relevant body region, and they are associated with psychosocial disability [39]. It is crucial to address this perceived stigma when providing care to patients with oral cancer [25].

Hope is one of the positive coping options available to people undergoing challenging circumstances [42]. The study indicated that hope was a relatively crucial protective factor for depressive symptoms among patients with oral cancer, particularly the positive readiness and expectancy dimension, which was intended to test the affective-behavioural dimension of hope [42]. Consistent with previous research, this study indicated that individuals with high levels of hope were likely to exhibit fewer depressive symptoms [31]. A retrospective cohort study revealed that patients' subjective optimism could predict depression remission [42]. Meisam Rahimipour discovered that a high level of hope could prevent people from renal failure and depression relapse [42]. Thus, increasing the amount of optimism, particularly "positive readiness and expectation," may have been one of the essential approaches to reducing depressive symptoms in Chinese oral cancer patients [32].

Another positive coping resource, optimism, was identified as a relatively crucial protective factor against anxiety symptoms in oral cancer patients [43]. The relationship between social support and anxiety was modulated by optimism, and those with low optimism had a strong negative association between social support and anxiety [13]. Scientific evidence suggesting an increase in the amount of grey matter (GMV) in the left brain region protects against anxiety symptoms via increased optimism [2]. Higher levels of optimism were strongly associated with lower levels of anxiety, depression, hopelessness, and quality of life. Although optimism is a persistent personality trait, it can convert pessimism to optimism by engaging in certain activities [2]. The Australian Optimism Programme (AOP) was a proven programme that could efficiently increase the amount of optimism [2, 32].

Notably, optimism was connected with anxiety symptoms, whereas hope was associated with depression symptoms [26]. This outcome was comparable to a study focusing on individuals with advanced forms of cancer, such as stomach cancer, colorectal cancer, lung cancer, or melanoma [1, 14, 44]. Although the relationship between hope and nearly all health outcomes has been established, it can be viewed as the anticipation of life after a diagnosis. Optimism is also more about awareness of the present life [32]. The study found that the higher one's hope, the fewer their depressive symptoms, and the greater one's optimism, the fewer anxiety symptoms [5]. Thus, therapies centred on hope or optimism can be considered in the future to decrease specific aspects of psychological distress among patients with oral cancer [43].

IV. CAREGIVER QUALITY OF LIFE

The psychosocial impact of oral cancer on caregivers of patients with mouth cancer revealed that most caregivers were female spouses [10, 35]. Seventy-seven per cent of caregivers in a Brazilian study were women, confirming these findings [45]. Roing et al. opined that the affective bond between spouses makes patients more receptive to emotional adjustment and that this finding may influence the study's findings [7, 46]. In their meta-analysis on the correlates of physical health of informal caregivers, Pinquart and Sorensen discovered that females or wives were more socialised and better prepared than males for the job of caregiving, making them less susceptible to the adverse effects of caregiving [47]. In a separate meta-analysis, Pinquart and Sorensen discovered that spouses reported poorer physical health and were more susceptible to physical deterioration due to ageing than adult children acting as caretakers. The caregiver's gender was not substantially connected with their psychosocial well-being [33, 41].

Caregivers of oral cancer patients experience a high burden of caregiving and a similarly elevated score for family disruption due to caring for the ill family member [48]. Still, they adapted positively to the shift in their daily routine and way of life. It has been reported that more caregivers than the general population suffer from mental stress, anguish, worry, and depression [49]. Using the n-depth interviews (IDIs), we were able to identify similar findings in our study [35]. In addition to these factors, financial instability was identified as a contributor to the family's increased psychosocial burden of oral cancer treatment [50].

V. CONCLUSION

After controlling for demographic variables, subjective stress and social isolation due to stigma were significantly and positively linked with anxiety and depressive symptoms. The positive readiness and expectancy dimension of hope were adversely and significantly linked with depressive symptoms, whereas optimism was negatively and strongly associated with anxiety symptoms. Additionally, oral cancer was connected with a considerably higher chance of developing later depression, and early identification and treatment of depression in individuals with oral cancer are essential. Caregiving is a demanding occupation. Typically, caregivers are unseen to the health care team. It is time that their contribution to cancer management is acknowledged and that their emotional and physical health receives the attention it deserves. This study proposes that particular attention be taken to educating them to provide care to oral cancer patients by providing them with enough information about the illness process and its effects and counselling facilities in the hospital to meet the many psychosocial requirements of the patients.

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