Original Article

The Ability of Dentists to Identify Psychiatric Symptoms in their Patients

Dr. Abdulrahman A. Al-Atram[1]

1-Associate professor, Department of Psychiatry, College of Medicine, Majmaah University, Saudi Arabia.

Corresponding Author: Abdulrahman A. Al-Atram., Email: a.atram@mu.edu.sa

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ABSTRACT

Background and aims: Oral health plays an integral part in the general health of an individual. Moreover, a significant number of patients report to their dentist with signs and symptoms primarily of psychological origin. Identifying and treating such patients appropriately are a priority, so this survey was done to assess the ability of dental practitioners to identify patients with psychiatric problems. **Methods:** A random sample of practising dentists in the Al Qassim province of Saudi Arabia was invited. The participants were then divided into three groups based on their clinical experience: Group I, with <5 years of experience; Group II, with 6–10 years of experience and Group III, with >10 years of experience. Chi-squared analyses were used. **Results:** Of the 150 dentists invited, 132 responded to the survey. Dentists in all groups encountered pa-

الملخص

الخلفية والأهداف: تعتبر صحة الفم جزء لا يتجزأ من الصحة العامة للفرد. وعلاوة على ذلك، فإن عددا كبيرا من المرضى يقومون بإبلاغ طبيب أسنانهم عن شكواهم المتعلق بعلامات وأعراض تكون أسبابها في المقام الأول من أصل نفسي. ويعتبر تحديد ومعالجة هؤلاء المرضى على النحو المناسب أولوية ، لذلك تم إجراء هذا المسح البحثي لتقييم قدرة أطباء الأسنان على تحديد المرضى الذين يعانون من مشاكل نفسية.

الطريقة: تمت دعوة عينة عشوائية من أطباء الأسنان الممارسين في منطقة القصيم بالمملكة العربية السعودية. ثم تم تقسيم المشاركين إلى ثلاث مجموعات على أساس خبراتهم السريرية: المجموعة الأولى ممن خبرتهم أقل من ٥ سنوات. المجموعة الثانية مع ٦-١٠ سنوات من الخبرة والمجموعة الثالثة تجاوزت خبرتهم١٠ سنوات. واستخدمت تحليلات كاي التربيعية لتحليل النتائج.

النتائج: من بين ١٥٠ طبيب أسنان وجهت لهم الدعوة ،أجاب ١٣٢ على المسح. وجد أن أطباء الأسنان في جميع

tients with mental health problems, and most focused on dental problems and ignored any psychological factors, stating that more time should be allocated to treat dental problems. They also noted that there was a lack of communication between dental practitioners and psychiatrists when cases were referred.

Conclusions: Early and appropriate recognition and management of psychological illness in patients with dental problems could help dentists provide treatment in a more holistic way. This can be facilitated by training dental practitioners to identify mental health problems in their patients and by ensuring that good communication exists between Dentists and Psychiatrists.

Keywords: anxiety, communication, depression dental practitioners, psychiatric disorders

الفئات قاموا بمعالجة المرضى الذين يعانون من أمراض نفسية ، وتركز معظم الأطباء على معالجة مشاكل الأسنان وتجاه لأي عوامل نفسية، وأشار هؤلاء الأطباء إلى أن هي نبغي تخصيص المزيد من الوقت لعلاج مشاكل الأسنان. وأشاروا أيضا إلى عدم وجود تواصل بين أطباء الأسنان والأطباء النفسيين عندما أحيلت الحالات للعلاج النفسي.

الاستنتاجات: في وقت مبكر و مناسبة الاعتراف وإدارة المرض النفسي في المرضى الذين يعانون من مشاكل الأسنان يمكن أن تساعد أطباء الأسنان توفير العلاج بطريقة أكثر شمولية. ويمكن تسهيل ذلك من خلال تدريب ممارسي طب الأسنان على تحديد مشاكل الصحة العقلية في مرضاهم ،وضمان وجود اتصال جيد بين أطباء الأسنان والأطباء النفسيين.

الكلمات الدالة: القلق ،التواصل ،الاكتئاب، أطباء الأسنان الممارسين،الاضطراباتالنفسية

INTRODUCTION

Oral health not only reflects the general health of an individual but also his or her overall mental status. Painful emotions, experiences, or behaviors can impair a person's life, such that he or she can no longer function properly. The prevalence of psychological illness among patients presenting for dental care has been increasing in recent decades [1]. This may be due to self-neglect, which is often associated with mental illness, fear of dental treatment, lack of accessibility to dental treatment or side effects of psychiatric drugs [2]. Dentists can, in turn, experience

difficulties when trying to give a convincing explanation about the patient's symptoms, and they can face challenges in diagnosis and management.

In a study of 10,000 adults in the United Kingdom, Meltzer et al. reported a 16% point prevalence of psychiatric morbidity [3]. The psychiatric disorders most commonly encountered in dental practice are mood disorders, anxiety disorders, somatoform disorders, substance dependence disorders (e.g. alcohol, nicotine, or other drug dependencies) and eating disorders (e.g. anorexia nervosa and bulimia nervosa) [4]. Dentists should be comfortable with identifying psychiatric illness because of its association with oral health [5], such as the fact that psychological disorders such as anxiety and depression can lead to phobias and orificial pain during dental treatment. Oral manifestations of psychiatric illness also include burning mouth syndrome, erosions, dental caries, xerostomia, parotid gland enlargement and trauma to the oral mucosa.

Although dentists may recognise mental health problems in their patients, they are often inadequately trained to perform a thorough assessment [6]. Drugs used in the treatment of psychiatric disorders can also result in oral symptoms, such as dryness, periodontitis and dental erosions [7]. Dentists should be aware that psychopathology can also interfere with dental treatment, often reducing compliance with preventive self-care and oral hygiene, which can further aggravate existing dental problems [8]. Therefore, simultaneous dental and psychiatric management can improve the holistic well-being of patients with mental health problems.

Patients with somatoform disorders usually complain of physical symptoms and request further investigation despite repeated negative findings. Dentists can then face particular difficulty when managing these patients [9], which can lead to less time being spent with them in the future. Social stigma is also becoming prevalent, so people may fear disclosing a psychiatric illness with their dentist [10]. Even after identifying stress and depression as contributory factors, patients can still be reluctant to be referred to a psychiatrist. At this point the dentist should educate patients about the role of psychological factors in oral disease and

convince them to seek the opinion of the psychiatrist, but many dental practitioners have a poor understanding of the role of psychiatric factors in oral disease. Difficulties can also arise if there is no interdisciplinary approach between dentist and psychiatrist.

This study was undertaken to assess the ability of dental practitioners to identify patients with psychiatric problems and how they manage the dental and psychiatric conditions in those patients.

Materials and Methods

In this cross-sectional descriptive study, dental practitioners were randomly selected from a list of dentists registered in the Al Qassim province of Saudi Arabia, using simple random sampling method. Both postgraduates (Master of Dental Surgery) and undergraduates (Bachelor of Dental Surgery) were included.

A semi-structured, multiple-choice, English-language questionnaire was printed and e-mailed to all study participants. The reliability of the obtained qualitative data was analyzed independently by a team that included two experts from the Department of Oral Medicine and Radiology, who had a thorough knowledge of psychosomatic disorders, and by one clinical psychiatrist. Level of agreement was then assessed, and the validity of the collected data was standardised using a forced consensus approach [6, 10].

Only participants who completed the questionnaire were included, and non-responders were followed up with a maximum of two further e-mails. After receiving their responses, the participants were categorized into three groups based on the number of clinical experience. Group I, for practitioners with <5 years of experience; Group II, for practitioners with 6–10 years of experience and Group III, for practitioners with >10 years of experience.

Questionnaire responses were analyses statistically using SPSS Version 22.0(IBM Corp., Armonk, NY, USA), and chi-square tests were used to compare proportions between the three groups.

Results

A total of 150 dental practitioners were invited to participate. In total 130 ini-

tially responded to the sbut another two responded after receiving the follow up e-mails. Thus, the final sample comprised of 132 dentists. The overall response rate was 88%, of which 18%, 36% and 46% were from Group I, II and III respectively

In this survey, all practitioners agreed that psychiatric problems should be identified in dental patients. Dentists in all three groups had encountered patients with psychiatric problems, with most agreeing that they focused more on dental problems and ignored psychological factors or related symptoms (Fig. 1)

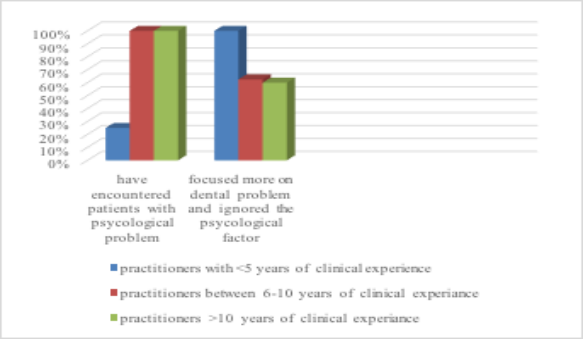


Fig 1: Percentage of dental practitioners who encountered patients with psychiatric problems

Whereas most practitioners identified psychiatric problems in Group II (62.5%) and Group III (60%), practitioners in Group I identified few patients (25%). However, all practitioners agreed that dental conditions or diseases can be associated with or cause psychiatric problems (p<0.001;Table 1).

Table 1. The results of the questionnaire completed by dental practitioners

Sl.no.	Questions	**<5 years (n = 24)**		**6 to10 years (n = 48)**		**>10 years (n = 60)**		***p*-Value**
1	**Dentists who have encountered patients with psychiatric problem**	Yes 6 (25%)	No 18 (75%)	Yes 48 (100%)	Nil	Yes 60 (100%)	Nil	<0.001
2	Practitioners focus only on dental problems and ignore the psychiatric related symptoms	Yes 24 (100%)	Nil	Yes 30 (63%)	No 18 (38%)	Yes 36 (60%)	No 24 (40%)	0.001

3	**Time spend in diagnosing dental complains in psychiatric patients**	Yes 24 (100%)	Nil	Yes 42 (88%)	No 6 (13%)	Yes 12 (20%)	No 48 (80%)	<0.001
4	**8. Is an alternate treatment or placebo been delivered to a psychiatric patient**	Nil	No 24 (100%)	Yes 24 (50%)	No 24 (50%)	Yes 12 (20%)	No 48 (80%)	<0.001
5	**Referring the patient to psychiatrist is considered as social stigma**	Yes 24 (100%)	Nil	Yes 18 (38%)	No 30 (63%)	Yes 18 (30%)	No 42 (70%)	<0.001
6	**Is further training required for dental practitioner's to handle psychiatric cases**	Yes 6 (25%)	No 18 (75%)	Yes 48 (100%)	Nil	Yes 54 (90%)	No 6 (10%)	<0.001

The most common psychological problems encountered in dental practice were dental anxiety and phobia, which were reported by 66% of dental practitioners (Fig. 2).

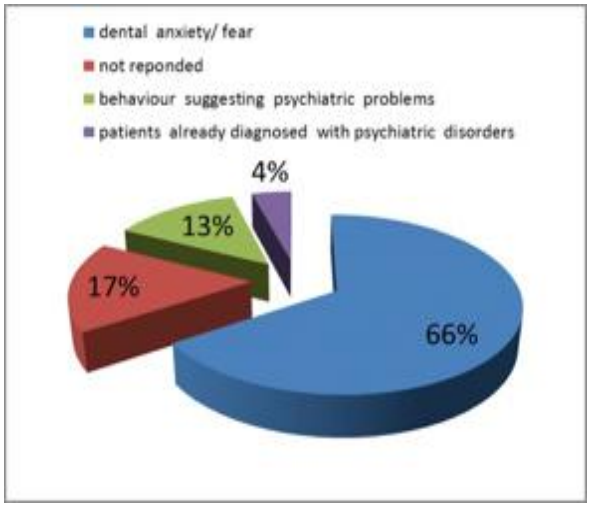


Fig 2: Psychiatric problems encountered in dental practice.

About 17% of practitioners did not respond to the question, another 13% stated that behavioral changes among their patients could indicate a psychiatric disorder and only 4% reported having treated patients with diagnosed psychiatric problems (p<0.001;Table 2).

Fig. 3 summarizes the role dental practitioners had in the management of psychiatric patients. Overall, 14% responded that they would provide treatment for dental-related problems and ignore the psychiatric illness. About 24% of practitioners agreed that they should allocate extra time to interact with psychologically ill patients, and 11% agreed

Table 2. The numbers of patients reported to attend dental clinics with psychiatric problems

Sl no.	Presentation	No. of participants according to the level of experience Total = 132		
		Group I (*n* = 24)	**Group II (*n* = 48)**	**Group III (*n* = 60)**
a	**Dental anxiety/fear**	12 (50%), not responded (50%)	42 (88%)	36 (60%)
b	**Anxiety depression due to life events**	Nil	Nil	24 (40%)
c	**Behaviour suggesting psychiatric disorders**	Nil	Nil	Nil
d	**Diagnosed psychiatric disorders**	Nil	6 (13%)	Nil
e	**Severe mental illness**	Nil	Nil	Nil

that basic dental treatment should be provided before focussing on psychiatric treatment. However, 51% of the dentists preferred direct referral to a psychiatrist without offering any dental treatment.

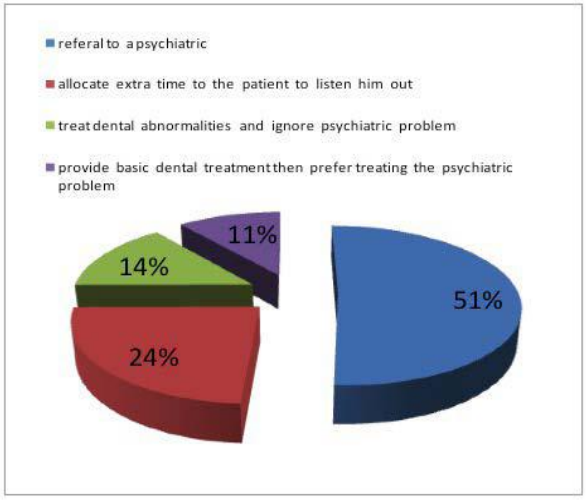


Fig 3: Management of psychiatric patients by dental practitioners

Practitioners in Group I preferred allocating their time to assessing the patient and referring them to a psychiatrist without any dental treatment (50%). Some practitioners in Group II would treat dental abnormalities before referral (13%), but most simply opted for direct referral (63%). In Group III, some would ignore psychiatric problems altogether and treat only the dental abnormalities (30%), some would treat and refer to a psychiatrist (20%), and some would refer directly to a psychiatrist (40%;$p<0.001$;Table3).

Table 3. Management of patients with psychiatric and related problems

Sl no.	Management	No. of participants according to the level of experience Total = 132		
		Group I (*n* = 24)	**Group II (*n* = 48)**	**Group III (*n* = 60)**
a	**Treat physical abnormalities and ignore psychiatric problems**	Nil	6(12.5%)	18 (30%)
b	**Provide basic treatment followed by psychiatric referral**	Nil	6(12.5%)	12 (20%)
c	**Allocate extra time to listen to the patient**	12 (50%)	6(12.5%)	6 (10%)
d	**Direct referral to a psychiatrist**	12 (50%)	30 (63%)	24 (40%)

Fig.4 summarizes the various treatment options adopted by dentists when managing patients with psychiatric illness. All participants in Group I, 88% in Group II and 20% in Group III responded that sufficient time should be allocated to treat dental problems (p<0.001). No dentist in Group I, 50% in Group II and 20% in Group III preferred treating patients with an alternative treatment or placebo (p< 0.001).

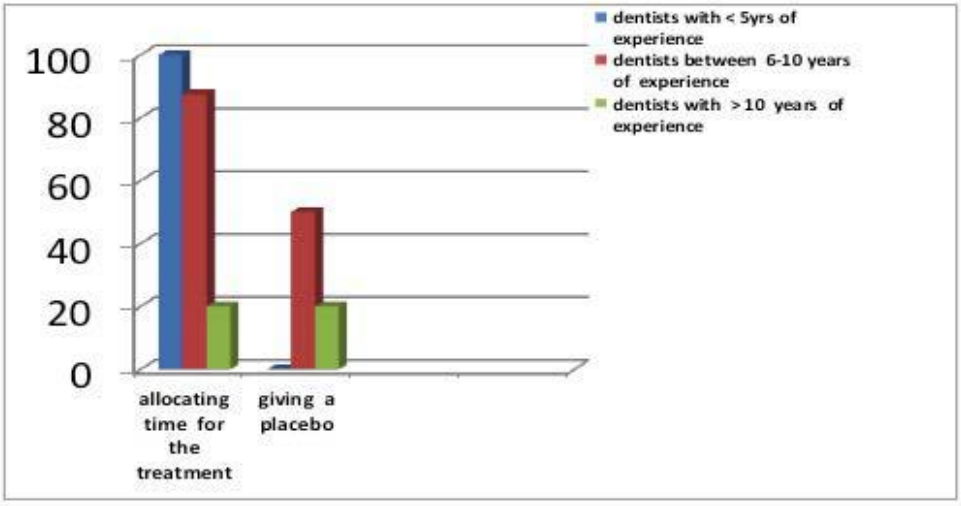


Fig4:Treatment options adopted by the dentists in management of psychiatric patients

Most participants (all dentists in Group I, 38% in Group II and 30% in Group III) believed that psychiatric referral was socially stigmatizing (p<0.001). Most dentists also stated that they would prefer to undergo further training before managing psychiatric patients themselves (p< 0.001), and most felt that additional follow-up of psychiatric patients was helpful.

DISCUSSION

The oral cavity reflects a patient's general physical and mental health. Several studies have highlighted that patients with psychiatric problems are more vulnerable to dental problems, not least because they are more likely to neglect their oral health [11]. Moreover, the prevalence and impact of psychiatric disorders have been increasing in patients presenting to dental practices. A study by Goldberg et al. on common mental disorders revealed that in primary medical care settings, the total prevalence of psychiatric morbidity was as high as 23%–25% [12]. In other research, up to 30% of patients attending dental clinics have been recognized to have psychopathology that often goes undetected and untreated [13]. Typical complaints of patients presenting to dental specialists with manifestations of underlying emotional disturbance are pain and abnormalities of sensation and salivation in the mouth.

Appropriate and early recognition of the emotional distress and suffering of patients would benefit both the patient and the health service [14]. It could also help the dentist to deliver appropriate treatment and management in a more holistic way. This is especially true if good professional communication exists between the dentist and a psychiatrist. However, certain factors appear to prevent the bridging of this gap [15]. This survey was therefore undertaken to evaluate the ability of dentists to identify psychiatrically ill patients who present to dental clinics and their awareness and knowledge in managing such patients.

The randomly selected dentists were categorized according to their experience level. Clinical experience was associated with value being placed on active listening and empathy. It is important for practitioners to elicit patients' perceptions of their illness, together with any associated feelings and expectations [15, 16]. Unfortunately,

because of the increase in technical expertise in dentistry, dentists may overlook their patients' psychological health. A void exists among dental practitioners when assessing psychological factors in their patients.

In this study, all dental practitioners expressed concerns when identifying patients with psychiatric problems. According to Friedlander et al., dentists should be concerned with the identification of depression because of its extensive association with dental disease. Common oral symptoms that manifest in patients who are mentally ill include facial pain, preoccupation with dentures, dry mouth, excessive palatal erosion, self-inflicted injury and dental diseases such as dental caries and periodontitis [17]. In this study, practitioners with more clinical experience could better identify patients with psychiatric problems ($p \leq 0.001$), probably reflecting the fact that patient–physician communication improves with clinical experience. Patients who understand their doctors are more likely to acknowledge their health problems, understand their treatment options, modify their behavior accordingly and follow their medication schedules [16].

It was also shown that most dental practitioners reported dental anxiety and phobias as the most common psychological problems encountered in practice. These results are in accordance with the study done by Gupta et al.in 2014, in which most patients who presented to a dental clinic with psychological disorders had anxiety and depression caused by a life event or an underlying emotional disturbance [10]. In the present survey, 13% of the participants stated that dental patients with psychiatric disorders displayed behavioral changes, but only 4% had encountered patients with a previously diagnosed psychiatric problem (most in Group II).This suggests that the prevalence of patients representing with psychological problems is increasing and that these patients do seek the help of a psychiatrist [5].

The present survey also revealed that most dental practitioners only focused on dental problems and ignored the psychiatric complaints of patients. A survey regarding dentists' approaches to patients with psychiatric illness concluded that there exists a need to allocate extra time to treat dental problems in these cases ($p \leq 0.001$) [17], and

that almost 50% of dentists would prefer to refer the patient directly to a psychiatrist to save time. All participants in Group I, 88% in Group II and 20% in Group III suggested that more time should be allocated for treating dental problems. In particular, practitioners with most experience (Group III) had difficulty in allotting extra time for the diagnosis and management of psychiatric patients because of their busy appointment schedule. By contrast, practitioners with less experience (Groups I and II)preferred to spend more time with their patients. It is recommended that dentists should spend much more time assessing psychiatrically ill patients, and that further treatment be planned in a proper way by collaborating with appropriate medical professionals [10].

Some practitioners opted to treat their patients with an alternative treatment or placebo to satisfy unusual requests ($p \leq 0.001$). Placebo or alternative treatment was not supported by any dentists in Group I but was supported by 50% in Group II and 20% in Group III.In 2009, as a complement to the population-based argument; David Feifel explored the ethical issues of placebo-controlled studies as related to the individual psychiatric patients who participate in them. The rationale for including a placebo arm was based on the "greater good" argument focusing on the benefit derived by the population at large who were candidates for treatment with the investigational medication [18].

Most participants in this study believed that referral to a psychiatrist was associated with social stigma and stated that patients were reluctant to be referred when informed about their psychological problem. This is consistent with the perception that people who are labelled as mentally ill have more negative attributes and more societal rejection, regardless of their behavior [19]. Studies attempting to identify the reasons for psychiatric referral on medical wards have pointed to noncompliance and disturbed behavior as the main factors [20]. This study adds to this, showing that despite the ability to assess mental illness, there still exists a major gap in communication with appropriate medical professionals.

Most of the participating dentists felt that they lacked the competence to manage psychologically ill patients, so wanted further

training to improve their skills. Lack of formal training is a significant barrier that could be resolved simply by introducing dedicated training programmes designed to improve the understanding of the major diagnostic conditions and potential impacts of mental illness on oral health [20]. In such training, dental practitioners should be made aware of the side effects of common medications used to treat mental illness and how these interact with drugs used in dentistry.

Overall, patient compliance with preventive dental health programmes and drug therapy is central to their health and should not be ignored because of mental health problems. However, despite the interesting findings of this survey, a major drawback is that the included dentists could not assess compliance of patients with psychiatric problems. In this regard, further studies are warranted.

Conclusion

There is a need to know more about the intimate connection between oral and mental health. It is equally important that proper knowledge and training be imparted to undergraduate dentistry students by adding psychiatry to the curriculum. This, in turn, would help upcoming dentists have better assessment skills for the management of patients who are psychologically ill. In tandem with this, steps should be taken to increase awareness among dentists about psychiatric disorders and their relationship to oral diseases. Interdisciplinary management between a dentist and psychiatrist can improve the overall well-being of a patient, which should be the therapeutic target regardless of whether the primary complaint is psychiatric or dental in origin.

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