NURSING-MEDICAL LABORATORY EVALUATION OF CHRONIC MEDICAL CONDITIONS FOR DENTAL TREATMENT; REVIEW

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Abstract:
The oral healthcare system may be negatively impacted by certain medical disorders, which may lead to a dramatic drop in oral health. For the purpose of assisting trainee dental practitioners in learning how to identify and treat oral health issues in older persons, a standardized teaching approach has been established. The purpose of this study is to determine whether or not patients are willing to disclose their medical history to their dentists, taking into account demographic and medical information, as well as the role that nursing and medical laboratory personnel play in the evaluation of chronic medical disorders during dental treatment. The serum and urine of patients who are coming in for dental treatment commonly have abnormal laboratory test findings. These abnormalities may be an indication of a condition that has not been recognized and medical therapy that is not as effective as it may be.

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Introduction:

The aging of the population is a well-documented demographic trend that is transforming societies all over the world, particularly with regard to the manner in which healthcare systems are planned and implemented [1]. A disproportional amount of the healthcare system is utilized by older persons as a consequence of the fact that these systems have been impacted by the rise in chronic illnesses that is generally associated with the aging process [2]. An elevated risk for rapid oral health deterioration (ROHD) is connected with older persons. This risk is caused by a variety of factors, including the high prevalence of chronic illnesses that are associated with age, the social ramifications of aging and retirement, and the cumulative nature of the most common oral disorders. In order to identify older individuals who had a reduction in their general health as they aged, as well as a contemporaneous precipitous drop in their dental health, the ROHD concept was devised [3]. It is possible that the higher risk of recurrent obstructive pulmonary disease (ROHD) was a contributing factor in the worse oral health indicators among older persons in comparison to younger cohorts in the majority of nations [4]. This phenomenon is particularly frequent among the most vulnerable populations, such as elderly people who are confined to their homes or who are institutionalized. In spite of the fact that the consequences of insufficient oral healthcare can be incapacitating, leading to localized discomfort and infection, there are some scenarios in which more serious mouth infections can spread and have an influence on the health of the entire body [5].

Effective contact with the patient is necessary in order to get a history that is accurate and comprehensive. In order to gain a comprehensive and accurate history, it is necessary to engage in active listening and to ask questions with great attention. A significant portion of the patient's medical history is gathered over the course of the interview. Professionals are able to give patients with the highest possible level of care when they have access to a medical history that is both thorough and accurate. The acquisition of a patient's medical history provides the dentist with valuable information and direction that assists in the process of diagnosis and the formulation of treatment plans [6]. Having an erroneous medical history might make it more difficult to arrive at an appropriate diagnosis, to safely treat the patient, and ultimately to make decisions. For this reason, obtaining a detailed history of the patient is an important instrument for preventing unfavorable occurrences either during or after the therapy procedure. In most cases, the information that the patient provides is the basis for the documentation of their medical history. This is something that should be mentioned. It has been demonstrated that less than thirteen percent of the patients' visit time is spent engaging in conversation with them. Beckman and Frankel conducted a research in which they found that the majority of patients have difficulty expressing their problems, and that only 23 percent of them were able to talk openly about their experiences [7]. The conclusion revealed that it helps in achieving an appropriate diagnosis, a change of the treatment plan, and a treatment prognosis because of the thorough information that was acquired. This was stated in a narrative that was published in 2015 in relation to the medical history. Additionally, it has a significant impact on the establishment of a relationship with patients, as well as the provision of information, education, and management [8].

Because of the effect of social conditions and the way in which society responds to aging, the process of aging is not only comprised of the biological processes that are associated with senescence. These aspects will play a role in determining how a person matures on average. In many cases, there is an absence of suitable social support [9]. One of the most significant risk factors for recurrent obstructive pulmonary disease (ROHD) is the absence of sufficient social support. In the case of older persons, for instance, the inability to finance oral health care and/or the absence of dental insurance after retirement might be significant barriers to accessing care. It has been regularly observed that suitable oral hygiene regimens are absent in long-term care facilities [9], which is another significant obstacle that is connected to the process of institutionalization.

Review:

There are a variety of medical issues that patients may have that might potentially impact their dental treatment. The medical illnesses in question may or may not be recognized, and the medical management of these disorders may or may not be under the jurisdiction of medical professionals. As a result, the modern medical screening procedure incorporates the completion of a medical questionnaire and the history of a dialogue as a component of the risk assessment process [4]. The collection and examination of biological fluids, such as serum, saliva, and urine, can, on the other hand, provide researchers with a more comprehensive understanding of the patient's general health. On the other hand, general dentists rarely obtain biological fluids, despite the fact that

the findings of a study conducted in 2012 demonstrated that patients are in favor of chairside medical screening in the dental office, that dentists appear willing to incorporate medical screening tests into their dental practice, and that screenings in the dental setting can identify conditions that have not yet been diagnosed [5].

Although the authors of a few studies have evaluated screening for diabetes in the dental office setting, there are only a few studies in which investigators have examined the use of multiple medical laboratory tests in the screening of patients who arrive for care in the dental office setting. This is because there are a limited number of studies that have been conducted. Following the completion of 39 consecutive dental patients, abnormal blood and blood chemistry test results were observed in one of the studies that were done and published in the literature. In the course of their research, they discovered that a significant number of patients were not aware of their current medical conditions when they came in for dental treatment. The findings of this study, which was conducted with a very limited sample size, in conjunction with the fact that people are living longer and suffering more complicated medical diseases, indicate that there is a need for greater research on the medical conditions prevalent among dental patients [11].

Plaque should be removed on a regular basis in order to prevent plaque buildup and, as a result, ensure that the oral bacterial burden is under control. On the other hand, those who do not wash their teeth on a regular basis are more likely to have consequences associated with plaque, such as gingivitis and caries [12]. Regrettably, elderly people who are feeble sometimes lack the ability to wash their own teeth effectively. Cognitive deficiencies can be the cause of this phenomenon; some of these patients or residents may simply require a gentle reminder to wash their teeth, while others may require supervision while they brush in order to ensure that they clean their teeth in the correct manner. However, there are certain patients or residents who will require their caretakers to brush their teeth after they have been brushed. A further obstacle that may prevent patients or residents from being able to brush their own teeth is one that is physical in nature rather than cognitive. This may include those who lack the manual dexterity necessary to brush their teeth or those whose vision is so bad that they are unable to see what they are doing. This set of patients and residents may be able to clean their teeth if they have larger toothbrush handles and/or power toothbrushes, while other patients and residents may still require assistance from a caregiver in order to brush their teeth. A great number of methods have been documented for the purpose of personalizing toothbrush handles in order to enable elderly people who have difficulties with their physical dexterity to clean their own teeth [13]. It has been observed that electric toothbrushes are more effective at removing plaque than conventional toothbrushes when used by patients or residents or by a caregiver [13]. Electric toothbrushes often have bigger grips than conventional toothbrushes.

When it comes to older persons, increasing their exposure to topical fluoride can help reduce the incidence of caries, halt the progression of existing carious lesions, and prevent the development of new lesions [13]. The use of fluoride toothpaste with a concentration of 5000 parts per million (ppm) twice daily and the application of fluoride varnish every three to six months is a routine that is widely suggested. Additional recommendations include using a fluoride gel with 1.23% fluoride every three to six months and rising with a fluoride solution of 0.09% fluoride. This technique, on the other hand, poses a few obstacles, such as the fact that patients with cognitive deficits may have an easier time swallowing the rinse, and that it may be difficult for certain patients with physical limitations to swirl and spit out a rinse. Furthermore, it is necessary for the gel to remain in the mouth of the patient for a period of four minutes, which might be very challenging for elderly people who are weak [13].

The topical fluoride agent known as silver diamine fluoride (SDF) has been utilized for a considerable amount of time in several nations for the purpose of halting and preventing caries. It was first offered to the market in the United States in the year 2014. Silver, ammonia, and fluoride are the chemicals that are responsible for the effects of SDF. Through the inhibition of bacterial DNA replication, the denaturation of bacterial cytoplasmic enzymes, and the destruction of the cell wall, silver ions are able to reduce the amount of bacteria present. [14] Fluoride and ammonia both contribute to the improvement of remineralization and the induction of fluorapatite production.

It is impossible to ignore the significance of maintaining record-keeping that is accurate. In order to improve the quality of care, it is necessary for the care of patients, the transfer of patients, and quality control. Effective contact with the patient is necessary in order to get a history that is accurate and comprehensive. In order to gain a comprehensive and accurate history, it is necessary to engage in active listening and to ask questions

with great attention. A significant portion of the patient's medical history is gathered over the course of the interview. Professionals are able to give patients with the highest possible level of care when they have access to a medical history that is both thorough and accurate. In order to provide the dentist with vital direction and data that can assist in the process of diagnosis and treatment planning, it is necessary to collect the patient's medical history. Having an erroneous medical history might make it more difficult to arrive at an appropriate diagnosis, to safely treat the patient, and ultimately to make decisions. For this reason, obtaining a detailed history of the patient is an important instrument for preventing unfavorable occurrences either during or after the therapy procedure. In most cases, the information that the patient provides is the basis for the documentation of their medical history. This is something that should be mentioned. It has been demonstrated that less than thirteen percent of the patients' visit time is spent engaging in conversation with them. Beckman and Frankel conducted a research in which they found that the majority of patients have difficulty expressing their problems, and that only 23 percent of them were able to communicate openly about their experiences. The conclusion revealed that it helps in achieving an appropriate diagnosis, a change of the treatment plan, and a treatment prognosis because of the thorough information that was acquired. This was stated in a narrative that was published in 2015 in relation to the medical history. Additionally, it has a significant impact on the establishment of a relationship with patients, as well as the provision of information, education, and management [15].

When compared to the one and only study in which researchers published the outcomes of a multianalyte panel, the data indicate that dental patients had a higher rate of abnormal laboratory test results. The amount of biochemical investigations and urinalyses that were done were comparable to those that were carried out in our own research; nevertheless, the most significant aberrant test findings that were reported concerned blood lipids, blood glucose, red blood cell count, and white blood cell count. Contrarily, we found a greater incidence of abnormal test results for AST, ALP, chloride, HGB, HCT, potassium, and total bilirubin, in addition to abnormal urine test findings. This was the case for all of the tests that we examined. It is possible that these differences might be related to the fact that our sample was bigger and more geographically diversified [15].

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minutes, which might be very challenging for elderly people who are weak [16].

Conclusion:

The findings showed that nurses and other medical personnel are not providing patients with sufficient information regarding their health. When medical experts work together to treat a patient, it may be beneficial for the patient to get education and have an awareness of the connection between dental management and medical difficulties. Moreover, this may help in lowering the number of medical mistakes and legal problems that occur in the field. The quality of patient education provided by professionals may be improved via ongoing training and education in the health care field. Furthermore, the results of our study indicated that the treating dentist was reasonably prepared to make a disclosure regarding health concerns. On the other hand, disclosing information was influenced by sociodemographic variables. It should be brought to your attention that patients who come in for dental treatment frequently have abnormal laboratory test results. As a result of the fact that many of the aberrant test results were many standard deviations away from the normal reference values and clustered with related tests, it is possible that many people are suffering from medical conditions or diseases that are not being detected. It was possible to gain some insight into the sorts of conversation history questions that a dentist ought to ask during the medical screening of dental patients as a consequence of the fact that links were found between aberrant laboratory test results and sex, race, age, and a medical condition. Furthermore, due to the fact that the majority of individuals in the United States go to the dentist at least once a year, the dental office is an appropriate venue in which to explore performing medical screens of patients for the purpose of referral into the medical health care system.

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