Knowledge, Attitude and Behavior of Dentists toward Management of Special Needs Patients in Benghazi City

By

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This Thesis was Successfully Defended and Approved on **29.6.2019**

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Dedication

I dedicate my humble effort

To the soul of my brother (Khaled)
May Allah have mercy on him

To my beloved Mother and Father

Who always picked me up on time and encouraged me to go on every adventure, especially this one.

My husband and My sons
Mohamed, Yousif and Ibrahim
Who supported and loved me

My brothers and My sisters

Amal M M Elbagermi

Acknowledgment

First and foremost , I would like to present my thank fullness and greatest glory to Allah (SWT) who gave me the courage and willingness to complete my dissertation and for being so great in everything he has done for me along this journey and throughout my life ,,, thanks my merciful Allah ,may your name be exalted, honored , and glorified.

I wish to express my gratitude and appreciation to my supervisor Dr.Fatma Saleh Ben Khaial, for her guidance, Patience, constant support advice on interpreting the study.

A lot of thanks to both, the external and the internal examiner for their valuable time and comments they provided.

Great thankful to my father & my mother, special thanks to my husband, my sons, my brothers and my *sisters.*

Finally, I would like to thank the participants in my survey

Amal M M Elbagermi

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Abstract

Background: Special needs patients (SNPs) are one of the underserved dental patient in Libya. A compromised oral health condition amongst SNPs has been associated with shortage of skills of dental professionals in management. **Objective:** to determine the level of knowledge, attitudes and behaviors of Libyan dentists towards caring for SNPs. **Methods:** A cross sectional study including Libyan dentist in public and private dental clinics in Benghazi. Data were collected from a representative sample by using a modified questionnaire. **Results:** In the total sample (234), 32.1% of participants were males and 67.9% were females. More than 63% of dentists had good knowledge about mental retardation in Down syndrome, difficulty in swallowing and aware about major barriers in treating SNPs. About 45% of the dentists felt uncomfortable providing care for such patients, and more than half believe that good communications effective in treatment of SNPs. Majority of participants (89%) did not receive adequate

training in Special Care Dentistry (SCD) and cannot manage mentally disable patient in their clinic.

Conclusion and recommendation: Dentists had a good knowledge regarding different types of SNPs and best time to treat them, meanwhile they were lacking knowledge about dealing with mild and severe mentally disabled patients. They believe that SNPs should receive equal treatment as any others and agreed about the importance of SCD as a part of undergraduate curriculum Although most of the clinic were lacking the facilities for treating SNPs, some good behavior were recorded like ability of managing physically disabled patient, using of non-pharmacological methods, importance of training special nurse to deal with SNPs and using of special instruments and equipment. It is hoped that future researchers will be able to carry out the issues highlighted by present study.

Chapter 1
Introduction

1.1 Introduction

Access to oral health care for patients with special needs is a growing challenge. The Commission on Dental Accreditation (CODA) defines dental patients with special needs as those patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment for that individual[(1)] .

The provision of high quality dental care for children with special needs (CSN) presents a challenge for the dental profession [(2)].

A disabled person presents challenges that require special preparation before the dentist can provide acceptable care. In addition parental anxiety concerning the problems associated delays dental care until significant oral disease has developed [(3)].

Facilitating access to dental services for the person with disability requires support at levels, including locating appropriate care providers, assisting with transportation or arranging for mobile dental services, determining availability of financial resources, and overcoming fear and anxiety [(4).] It is also influenced by knowledge, attitude and behavior among the dental team [(5)].

Greater efforts to improve access to dental care for poor and more disabled patients with special health care needs are more specifically needed [(6)].

Oral health has been reported to be the most unattended health need among the disabled, the provision of which remains a challenge in the 21st century, behavioral and co-ordination problems often exist within the dental environment, the resulting in poor cooperation from this group of patients[(7)].

People with special needs are the most underserved of the population in our society. They have more dental disease, more missing teeth, and more difficulty obtaining dental care than other segments of the population[8] which require health care beyond that considered routine, and involves specialized knowledge, increased awareness, attention and accommodation[9]. Many individuals and groups, have developed community-based systems to improve oral health for people with special needs. However, these systems have not been as successful as they might be because of lack of effective preventive protocols specifically designed for people with special needs [8].

The oral health status of disabled patients has generally been poorer than others as the treatment and care afforded to them has minimum services [10].

Also, oral health status is often considered as a possible source of health inequalities in person with neuromotor and mental deficiencies. The quality of the evidence base supporting this assumption is not high despite numerous studies reporting poor oral health in patient group with disabilities [11].

SNPs have also demonstrated a higher prevalence of oral disease and greater un-met dental needs compared to the general population. A number of oral health issues are related to both their disability and complex health needs that can in many instances prevent them from receiving appropriate dental care, many factors contribute to the problem including aspects of cooperation, cognitive capacity and communication [12].

It is obvious that many factors such as a patient's ability to pay and the amount of time needed to treat a patient will play a role in a dentist's decision to treat SNPs. However, providing a solid knowledge and skills basis will improve dentists' attitudes towards treating these patients and will give them more confidence. Such positive attitudes may then allow

them to think about overcoming obstacles that may keep them from treating these patients [13].

In general, Special Needs Patients (SNPs) have poor oral hygiene due to underlying disability or sometimes as a side effect of certain medication. This group of people are generally unaware of the need to seek dental care, therefore, appropriate treatment and care should be provided to prevent the progress of oral diseases that might later require complex treatment procedures. Due to certain complications like insufficient behavioral management skills and lack of training in the field, most dental professionals are not willing to provide treatment to this group of patients. SNPs in majority seek dental treatment for remedial procedures compared to preventive procedures [14, 15].

The World Health Organization (WHO) defines disabilities as an activity limitations, impairments and participation restrictions. An activity limitation is a struggle faced by person in performing a job or action while impairment is difficulty in function or structure of the body [16].

American Academy of Pediatric Dentistry (AAPD) explains special health care needs (SHCN) as any physical, developmental, behavioral or mental impairment that requires medical management or use of specialized services. Health care for individuals with special needs requires specialized knowledge acquired by additional training as well as increased awareness and attention, adaptation and accommodative measures beyond what are considered routine [17].

The federal Maternal and Child Health Bureau describes Children and Youth with Special Health Care Needs (CYSHCN) as those who are at increased risk for a physical, behavioral or emotional condition and require specialized health services beyond that required by normal children [18].

Generally, the varying definitions of a special needs can be roughly divided into three categories: mental handicaps, physical handicaps and medical disabilities [19, 20].

Furthermore, Special Needs Dentistry (SND) can be defined as a branch of dentistry that deals with the oral health and related problems of individuals severely affected by physical or intellectual disability or by profound psychiatric or complex medical issues [21].

The increasing global population of people with Special Health Care Needs indicates a greater requirement for improved healthcare services. It is estimated that one billion individuals, equating to approximately 15% of the population, are living with special needs, which is estimated to rise with the increased chronicity of disease [22].

Dentists as well as other health professionals realize that oral health cannot be detached from the general health of the hospitalized patient. Many oral conditions are closely related to systemic diseases. Optimally, total health care requires the combined efforts of the medical and dental professions [23].

Dentists traditionally have been reported as being hesitant to provide services to people with disabilities, the reasons for this hesitancy are numerous and range across physical barriers in their practices, economics, and lack of education, however identification of such barriers can be the first step in addressing the deficiencies as outlined by Edwards and Merry in 2002 In Ireland [24].

Dentists and dental students need to be aware of the problems faced by people who have disabilities, and should also be educated in managing the special needs of this group of patients [25].

In particular, the dentists' availability is dependent by the time committed in treatment of disabled persons, educational experience and

training in treating patients with disabilities or chronic conditions, economic factors and age (educational debt, financial practices, family expenses, more frequent in younger dentists), setting of the dental practice (public/private dental service, small/large communities), reimbursement programs [26, 27] .

Dentists' willingness to treat people with special health care needs is affected by the uncooperativeness of some patients during the dental treatment perceiving it as a barrier depends on the type of performed practice of the dental providers and by their educational experience (e.g. pediatric dentists commonly raise minor obstacles in treating disabled persons, since their training and practice are focused on behavioral management of younger patients). Data on dentists' availability are in reality controversial, no evidence is clear which among personal talent, age, education or clinical experience is the main determinant factor for willingness to treat patients with disability or chronic conditions [26, 28].

It has shown that professional attitudes towards SNPs, and willingness to treat them, increase with training in this field. At present, this training has a low priority in many dental schools [29].

One of the most challenging aspects of dental practice is working with the difficult, challenging or uncooperative patient. It is during these times that the dentist's clinical and patient management skills are most thoroughly tested success requires a personal knowledge of the patient and an understanding of human behavior, development and cultural diversity. In the university clinic student have the opportunity to learn and put into practice their first behavior management strategies. Thus, there are frequent opportunities for faculty to demonstrate behavioral techniques in a way that may potentially have a long -term impact on student and their practice. It is essential that these management techniques be useful and valid, as they will

form the students, foundation for future patient interventions and outcomes [30].

Furthermore treatment of disabled persons is very difficult and time consuming. It requires a special psychological approach and often pre medication. If the necessary cooperation is not achieved conscious sedation or, in serious cases, general anesthesia can be used [31]. Rehabilitation therapists and care workers can provide valuable assistance in coordination of dental care for people who are severely disabled [4].

Most general dentists did not think their undergraduate dental education had prepared them well to treat special needs patients. However, the better they reported to have been educated, the more likely they were to treat SNPs. Given the access to care problems for many SNPs, it seems crucial to revise dental curricula and provide more informative and clinical education concerning the treatment of SNPs [13].

Researchers conducted more recently showed that the more experience dentist had with patients with mental retardation, the greater their awareness of the capabilities of people with mental retardation, the more positive their attitudes, and the better their appreciation of these patients' dental needs [32].

Chapter 2
Review of Literature

2.1 Literature review

A study conducted by Derbi and Borromeo in Australia (2016) found that lack of dentist skills and knowledge in managing SNPs were one of the most frequent barriers that cited by dentists, carers and patients to providing treatment for people with special needs, the level of awareness SND amongst dentists may be increased with more professional developmental training programs in SND [(12)].

A survey conducted by dentists in Malaysia (2015) show that majority of the dentists revealed lack of clinical skills contributes to the challenges while treating SNPs. This can also be due to the insufficient training during undergraduate course. Half of the dentists agreed that behavioral management is a major challenge in treating SNPs. Girdler and Hill stated that a successful treatment for those patients depends on the dentist's ability to manage the patient with appropriate behavior management techniques as cooperation is often lacking in individuals with severe disability [(33)].

Alkahtani and coworkers in 2014 conducted a compared study, in Suadi Arabia and USA (2014) found that dentists who reported being prepared to treat individuals with Developmental Disabilities (DD) had more positive attitudes toward their educational experiences and their instructors' behavior in the treatment of individuals with DD, compared to dentists who reported not being prepared to treat individuals with DD [(34)].

In its accreditation standards published in 2004, the Commission on Dental Accreditation (CODA) adopted a new standard, to be implemented starting in January 2006, stating that Graduates must be competent in assessing the treatment needs of patients with special needs. The literature shows that academic dental institutions have a history of underpreparing

students to deal with the increasing population of individuals with special needs [35].

A study done by Vainio in 2011 at Dental students in the University of Michigan as well as dental student leaders from other U.S. dental schools reported that their dental education about treating patients with SNPs was not exceptionally positive [36] .

Chavez et al in University of the Pacific San Francisco (2011) reported that it has been shown that those who had treated more SCD patients as students go on to treat a higher percentage of these patients in practice [37].

Recent literature suggests that undergraduate dental students may graduate with a lack of experience in SCD, particularly with regards to clinical training. Furthermore, this lack of experience may negatively affect the provision of care for SCD patients after graduation. Lack of knowledge, confidence or experience may become a barrier to delivery of oral health care to patients requiring SCD [13, 38]

In Dublin (2010), Smith et al found that lack of confidence amongst dentists' leads to a reduction in the number of patients requiring special care being treated in practice. This is also supported in the literature [14].

A study done by Gordon in united kingdom and Ireland(2009) demonstrated that SCD training has a low priority in many dental schools, and highlighted that, Professional attitudes towards handicapped people, and willingness to treat them' improved following teaching in this area [39]

A study conducted in Royal hospital in UK (2008) by Charteris and Kinsella found that In addition to problems with physical access, problems with not finding knowledgeable dental staff were also reported as a barrier to provid care for special needs patients [40].

Another study done by Schwenk in USA and Canada (2007) found that non-education-related factors, such as concerns about adequate compensation and about special arrangements needed when providing care for these patients, might also affect dentists' decisions to treat special needs patients [41].

The National Survey of Children with Special Health Care Needs conducted in the USA by Waldman and coworkers in 2006 showed that dental care was the most commonly-reported unmet service need [11].

A survey by dentists Oredugba and Sanu, (2006) in Nigeria suggested that learning of appropriate interpersonal communication skills is a crucial entity of health care professionals in treating SNPs. [42].

In Michigan university (2006) Smith et al reported that the generally accepted consensus is that formal SCD education can enhance confidence and make a difference in this area of dentistry [43].

Dao et al in USA (2005) found that general dentists who felt well prepared in dental school to treat patients with intellectual disabilities conveyed more positive attitudes toward treating these patients and more confidence in their ability to do so, and also reported that most general dentists did not think their dental education had prepared them to treat PSHCN [13].

Qualitative research has established that a correlation exists between undergraduate dental training and the treatment of patients requiring SCD upon graduation [13].

Increased student confidence in SCD may increase the likelihood of a General Dental Practitioner (GDPs) providing SCD in a community setting [13, 32].

Research done by Casamassimo et al in Ohio university(2001) has shown that general dentists who were not exposed to SNPs during their

training were less likely to treat these patients in their practice than those with such experience, and also suggest that educational opportunities are essential to overcoming a lack of preparedness as a barrier to providing oral health services to special needs populations [26].Same study found that dentists who had not been exposed to hands-on and lecture were less likely to care for these patients. It is also encouraging to note that dentists who had been educated in CSCHN care perceived fewer barriers to providing care to special needs patients [26].

Positive relationships between experience with individuals with special needs and comfort level have been reported. Wolff et al.in USA (2004) found that the more experience dental students had treating persons with intellectual disabilities, the more positive their attitudes concerning this population, and the more willing they were to treat them [32].

Waldman and Perlman in New York University (2002) found that dentists reported a lack of knowledge about providing care for patients with special needs and indicated that they did not have sufficient clinical experiences with these patients during their dental education [44].

A study conducted in Ireland (2002) by Edwards and Merry reported that only one quarter of practices surveyed having full physical access for all patients [24].

Many dentists in other countries have been reported to have low confidence in their ability to manage patients with special needs [45].

Casamassimo in Ohio university (1983) suggests that educational programs in care of SNPs do not necessarily increase the number of dentists willing to care for these patients, but rather reinforce the decision of those practitioners who are already favorable to SNPs care to try to help these individuals who have such overwhelming needs. The conflicting

education findings simply reconfirm the complexity of a dentist's decision to see SNPs [46].

A study conducted in North Carolina (1980) by Block and Walken showed that students who participated in an extramural program and treated mentally retarded patients had more confidence and felt more relaxed about handling the mentally retarded in their dental practice [47].

Chapter 3
Methodology

3.1 Study design

This study was a cross-sectional survey using questionnaire for data collection of dentists concerning with special needs patients. This study assessing the levels of knowledge, attitude and behaviors in dentists concerning with special needs patients**.**

3.2 Duration of study

This study was conducted from September 2017 to January 2018 in Benghazi city, Libya.

3.3 Study population and sampling

The population of the current study consists of public and private oral health clinics of dentists in Benghazi city, the total number was (595) of dentists from public and private clinics. The total number of the males' dentists was (193), and females' dentists' number was (402). In Benghazi city there were (347) dentists work in polyclinics, (150) dentist work in central clinic, (86) dentists work in Salmani clinic and (12) dentists work in El Kish clinic. Proportional stratified random sampling was used to choose participants from each clinic. The dentists were randomly chosen using simple random sample.

3.4 Sample size

The sample size was determined by a sample size calculation according to Krejcie–Morgan [48]. In the majority of quantitative studies. A 95% confidence interval and significance level of 5% was used.

$$n = \frac{\chi^2 NP(P-1)}{d^2(N-1) + \chi^2(1-P)} \cong 248$$

Where:

n: Sample size calculation

N: Population size study

χ^2: Chi-square with one degree freedom and α=5%=0.05

Prevalence of dental knowledge, P= 50%=0.5

d: The error rate allowed=2.5%=0.025.

The survey questionnaires were distributed for chosen sample dentists. Therefore, the total sample of the questionnaire survey was 248 to whom questionnaires were distributed. Then the sampling strategy does not seem to be a critical issue except for taking into consideration the non-response or missing information for the sample students, so the response rate was 94.4% (234 out of 248 sample students). The approval from authorities from Benghazi University and ministry of health were provided and the permission for participation was delivered to clinics principles.

3.5 Data collection method

In this study the information was collected based on a questionnaire and the methodology used for data collection of dentists concerning with special needs patients. In addition, the researcher was used the statistical package SPSS program to apply the appropriate statistical tools (Chi square) and analysis was entirely quantitative data.

3.6 Questionnaire design

The objective of the questionnaire survey in this study is to assess knowledge, attitude and behaviors of dentists in Benghazi city toward management of special needs patients include 6 variables of demographic 26 questions of knowledge, attitude and behaviors of dentists. The questionnaire was given to the dentists with explaining the purpose of the

study and they were requested to complete it and return it back, also they have been told that have right to refuse or with draw from the participation. Hence, it requires constructing the questionnaire (Appendix) in such way so that it is specific enough to reveal answers to the questions, yet general enough to allow respondents not to reveal any sensitive information. A closed-ended question, a selection of answers from which the respondent is asked to select one. Therefore, some questions in this questionnaire are close ended and have been constructed according to the Likert Scale , It has used yes/no answer with a value of ‘1‘ indicating that the negative response answer was no to any particular question and the highest number ‘2‘ indicating that the positive response answer was yes to the particular question.

The questionnaire in this research went through a number of developmental stages before final distribution. In the first stage, a draft of the questionnaire was produced by writing down and grouping all questions and issues which had resulted from the literature review. This draft was then distributed among some dentists to elicit their comments (mainly on the wording, sequence and structure of the questionnaire).

3.7 Structure of the questionnaire

The questionnaire (Appendix) designed for the study was divided into two parts, First Part was for respondent‘s background information and includes Age, gender, experience, degree, specialty and clinic. The Second Part was the main part of the questionnaire, aims to gather respondents' knowledge of dentist about special needs patients on eight statements. The attitude of dentist concerning the special needs patents on eight statements, the last dimension of behavior of dentist with special needs patents on ten statements (Appendix).

3.8 Pre testing and the pilot study

In the case of questionnaire survey, the success largely depends on the quality of questionnaire itself. The main factor in questionnaire design is clarity and, therefore, complex and confused wording should be avoided. Therefore, it was absolutely essential that a pilot study should be conducted to establish that the proposed questionnaire was intelligible and clear to members of the target population. Also, researchers should be ensure that the questionnaire unambiguous, reliable and valid for the purpose for which was used. A pilot study was done to pretest the questioner to assess face validity and acceptability of the questions and avoid potential misunderstanding of the questions and according to the results the appropriate adjustment were made. In social science research much emphasis was given to piloting the questionnaire before its final distribution. The aim of the pilot survey was to establish that the proposed questionnaire was understandable and clear to the members of the target population. It was useful to pilot the questionnaire with a small sample of respondents to check its suitability for achieving the research aims and objectives.

3.9 Test of reliability

There were many common methods of estimating reliability, which are: the test-retest method, the split half method, and the alpha coefficient. In this study, the co-efficient alpha score or (Cronbach's Alpha) [49], was used to measure the reliability of the survey questionnaire. The alpha coefficient ranges from 0-1, and it is common practice to take 0.60 as the minimum acceptable value of alpha. The alpha coefficients in thirty cases as pilot study for knowledge statements were more than 73%, and for attitude statements were of about 91%, and for behavior statements were of 70%.

The results showed that the alpha coefficients in all cases are more than 0.70.

These results indicate that the data obtained from questionnaire survey are reliable and suitable for further analysis.

3.10 Statistical methods

The main objective of the analyses was to assess knowledge, attitude and behaviors of dentists in Benghazi city toward management of special needs patients. Chi-square test of proportions was used to compare differences in proportions between the groups, all analyses were performed using SPSS version 23. The 5% has assumed that the level of significance (i.e. a probability or p level of α =0.05 or five times out of a hundred has been considered). When the p-value of a statistics is less than the significance level, the value of the statistic is said to be significant otherwise no significance. Figures presented using Microsoft Excels2010.

Chapter 4
Results

4.1 Profile of respondents

It is important to introduce the background of respondents participating in the survey to understand the level of the respondents. Thus, this study aimed to investigate the knowledge, attitude, and behavior of Libyan dentists in attempt to explore the importance and local community-based rehabilitation that need improvement in order to obtain more effective services from the dentists in Benghazi city. Furthermore, possibility of modification of the present undergraduate curriculum concerning management of special needs patients. Although detailed characteristics of the survey respondents will be discussed in the next chapter, a brief profile (gender, age, experience, degree, specialty and clinic) of the survey respondents is presented in the following table:

Table 4.1.1: Description of the samples according to the background of respondents

Variables	Classification	Numbers of respondents	Percentage
Gender	Male	75	32.1
	Female	159	67.9
	Total	**234**	**100%**
Age	26-30 years	44	18.8
	31-35 years	52	22.2
	36-40 years	41	17.5
	41+ years	97	41.5
	Total	**234**	**100%**
Experience	Less than 5 years	21	9.0
	5-10 years	86	36.8
	11-15 years	58	24.8
	16-20 years	35	15.0
	21+ years	34	14.5
	Total	**234**	**100%**
Degree	B.D.S*	189	80.8
	Master	37	15.8
	Ph.D.*	8	3.4
	Total	**234**	**100%**
Specialty	G.D.Ps*.	189	80.8
	Peadodontics	8	3.4
	Microbiology	10	4.3
	Periodontology	12	5.1
	Conservative	5	2.1
	Crown and Bridge	10	4.3
	Total	**234**	**100%**
Clinic type	Public	169	72.2
	Private	65	27.8
	Total	**234**	**100%**

*BDS = Bachelor Dental Science, *Ph.D. =Philosophies Doctor, *GDPs= General Dental Practitioners.

Table 4.1.1 and Figure 4.1.1 state that 75 out of 234 (32.1%) of respondents participating in the survey were males and 159 out of 234 (67.9 %) females. The above table (figure 4.1.2)presents that the majority of respondents participating in the survey (41.5 %) from age 41 years or more, followed by (22.2 %) of age from 31-35 years and the minority of

participants from age 36-40 years of about (17.5%), whereas 18.8% from age 26-30 years.

This indicates that most of the respondents aged (41+) from Libyan dentists, which may be had a good knowledge, behavior, and attitude of special needs patients in this survey. The Libyan dentists who have knowledge/expert or experience can play a leading role in the special needs patients by providing valuable views, which can increase a new dentist's knowledge.

The Table4.1.1 and Figures 4.1.3 also show that 9.0% (21 out of 234) of the respondents participating in class less than 5 years of experience, which was lowest class in experience, while 36.8 % (86 out of 234) in class 5-10 years of experience, which was highest class in experience of dentists in this survey. The other percentages were distributed of the respondents participating in the survey as shown the above table. The dentists who have a good experience (21+years) can play a leading role in the special needs patients by providing valuable views and comments, which can increase the present undergraduate curriculum productivity.

Educational qualification or degree of dentists is an important indicator about respondent's background. Table 4.1.1 and Figure 4.1.4 show that the majority of dentists' participating have obtained a Bachelor's Degree of 80.8 % and obtained master's degree of about 15.8 %, and 3.4% for Ph.D. degree. More specifically, this reflects the finding that the majority of dentists does not have a relevant educational qualification to be able to fulfill his or her duties properly.

Table 4.1.1 and Figure 4.1.5 illustrates that the majority of dentists' participating have obtained G.P. of specialty of about 80.8% (or 189 out of 234), whereas the other percentages were distributed of the respondents

participating Peadodontics of 3.4 %, both Microbiology and Crown & Bridge of 4.3 %, Periodontology of 5.1% and a small minority Conservative dentistry of 2.1 %. In general, the current study deals with the practices of G.D.P and to some extent it requires specialized expertise to respond to the survey. Table 4.1.1 and Figure 4.1.6 presents that the majority of dentists working in public clinics that 169 (72.2 %), whilst 65 (27.8 %) in private clinics.

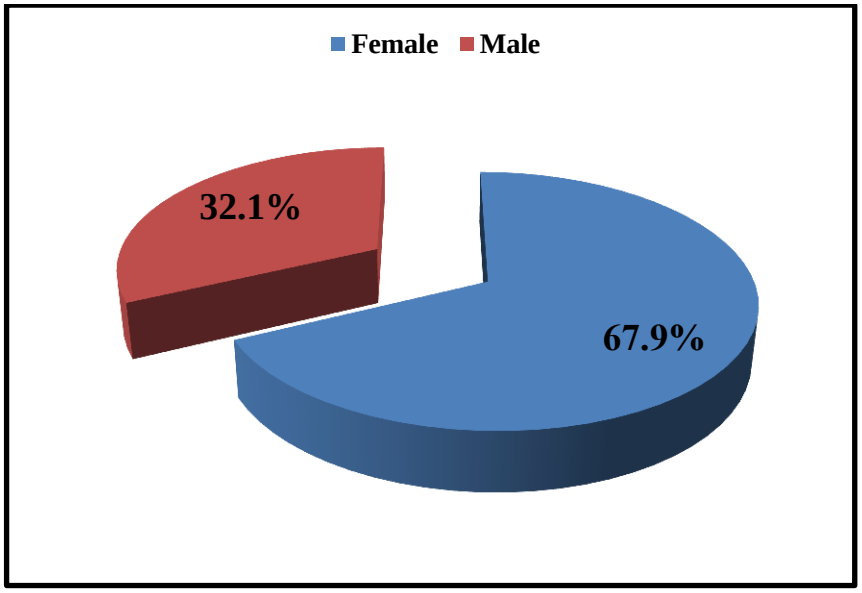

Figure 4.1.1: Gender Distribution of the Participants.

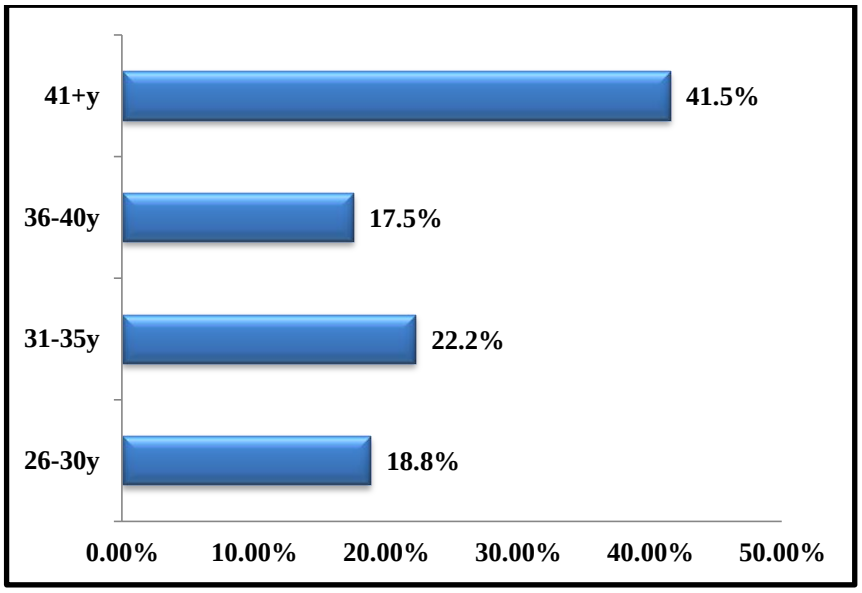

Figure 4.1.2: Age groups distribution of the Participants.

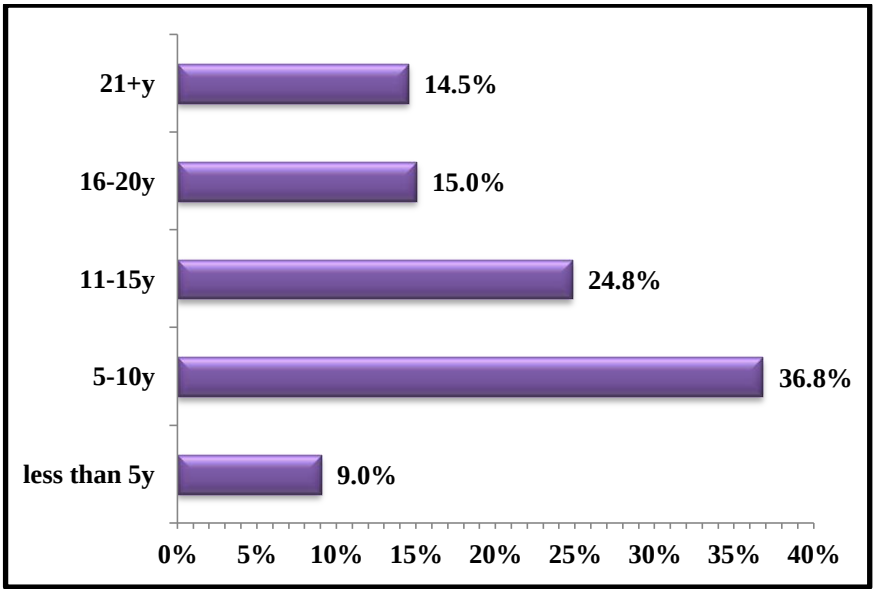

Figure 4.1.3: Experience groups distribution of the Participants.

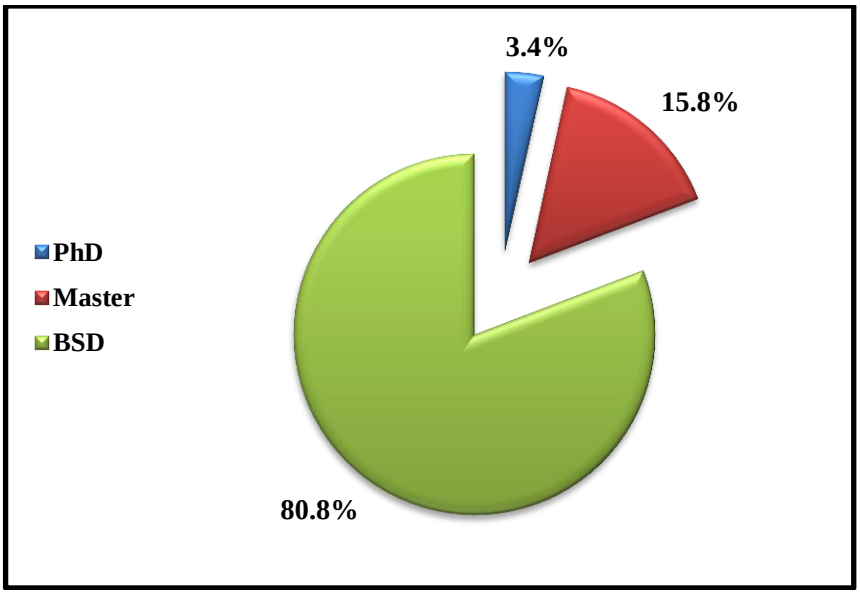

Figure 4.1.4: Degree groups distribution of the Participants.

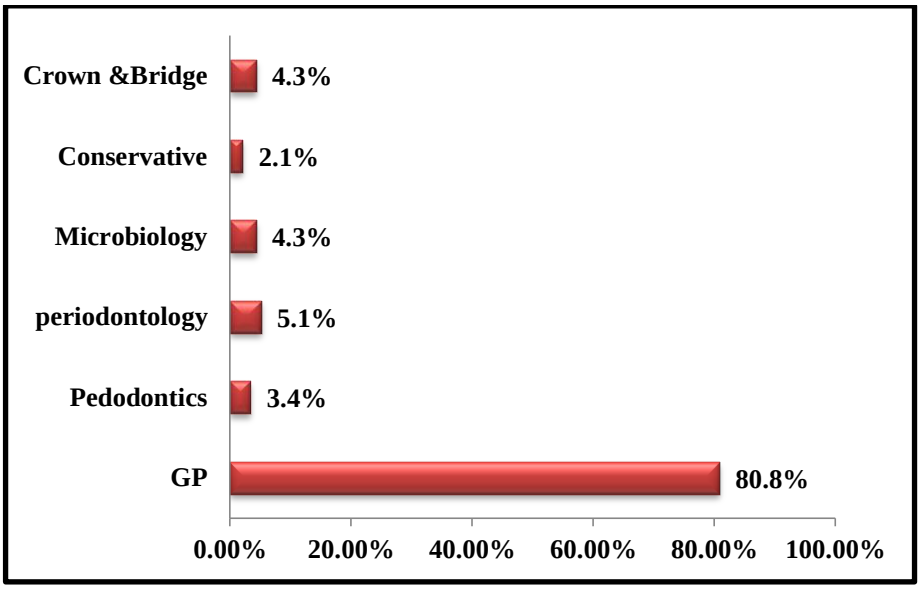

Figure 4.1.5: Specialty distribution of the Participants.

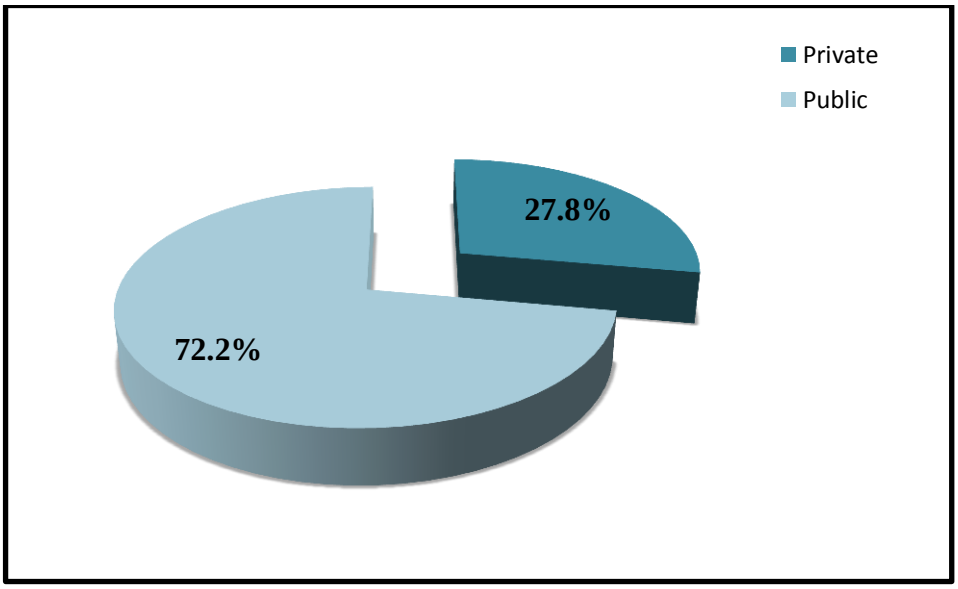

Figure 4.1.6: Type of clinics distribution of the Participants.

4.2. Knowledge of dentists concerning the special needs patients

Knowledge on oral health is an important factor of our health, especially for special needs patents. But it is often neglected and special needs persons had less importance on maintaining their oral health care in the most of developing countries. Therefore, this section aimed to investigate the knowledge in this survey to explore the importance and possible corrected chose of alternative conceptions concerning management of special needs patients.

The following table summarizes dentist's knowledge in this survey:

Table 4.2.1: Descriptive statistics related to dentist's knowledge

Questions	Classification	Number	Percentage
1.Different types of special needs patients	- Cerebral palsy	71	30.3
	- Autism	48	20.5
	- Medical compromised	14	6.0
	- Combination	101	43.2
	Total	**234**	**100%**
2.Mental retardation associated with	- Down syndrome	148	63.2
	- Deafness	19	8.1
	- Blindness	22	9.4
	- Combination	45	19.2
	Total	**234**	**100%**
3.Patient with difficulty in swallowing associated with	- Cerebral palsy	163	69.6
	- Down syndrome	35	15.0
	- Autism	14	6.0
	- Combination	22	9.4
	Total	**234**	**100%**
4.The best time to treat a special needs is	- Early morning	166	70.9
	- Late morning	30	12.8
	- Late afternoon	2	9
	- Any time during the day	36	15.4
	Total	**234**	**100%**
5. Dealing with mild mentally disabled patient	- As normal patient	189	80.8
	- As a normal patient with special percussions	8	3.4
	- Using sedation	10	4.3
	- Under general anesthesia	12	5.1
	Total	**234**	**100%**
6. Dealing with severely mentally disabled patient	- As normal patient	62	26.5
	- As a normal patient with special percussions	77	32.9
	- Using sedation	64	27.4
	- Under general anesthesia	31	13.2
	Total	**234**	**100%**
7.Major barriers in treating special health care needs patient	- Communication difficulty	45	19.2
	- Facilities availability	22	9.4
	- Financial barrier	19	8.1
	- Combination	148	63.2
	Total	**234**	**100%**
8. Source of knowledge about special care dentistry	- Lectures	155	66.2
	- Training	30	12.8
	- Internet	25	10.7
	- Combinations	24	10.3
	Total	**234**	**100%**

This table 4.2.1 indicates that all of the above selection of dentists were (43.2 %) related to ‘Different types of special needs patients’, which is considered the correct answer, while there was a significant proportion of the selection cerebral palsy of about (30.3%) and (20.5 %) for choice autism, which is considered wrong answer. This means that more than half of dentists have not enough knowledge about types of special needs patients.

Table shows that about (63.2 %) of dentists chose the answer Down syndrome as the presenting symptom of mental retardation which considered the correct answer, whereas the other percentages distributed for the rest of other options.

The above table shows that the majority of dentist in this survey were chosen cerebral palsy of about (69.6 %) for the statement difficulty in swallowing is associated with cerebral palsy patients, which considered as the correct answer, while the other percentages distributed for the rest of other options. This reflects that most of dentists have a good knowledge about the association between difficulty in swallowing and cerebral palsy patients.

Table highlights that ‘the best time to treat a special needs is’ early in the morning of about (70.9 %), which considered as the correct answer. This finding is consistent with sufficient knowledge of the dentists towards the best time to treat a special needs is early in the morning. Although, there was a significant proportion of the selection at any time during the day of about (15.4 %) and (12.8 %) of dentists chosen late in the morning.

The statement relating ‘Mild mentally disabled patient can be treated’ was chosen ‘As normal patient’ to by the highest number of dentists (80.8 %). Therefore, they may be reluctant in treated on such a way

percussions related technical issue, which considered as the wrong answer. However, 8 dentists (3.4%) saying that treated as a normal patient with special percussions, and 10 dentists (4.3%) chosen the option using sedation, both selection considered as the correct answer for the statement 'Mild mentally disabled patient can be treated'. This result might be because, either the dentists are not sure about disabled patient treated or they are not willing before to special needs patients lack in this respect.

Table shows that only (13.2%) (31 out of 234) of the dentists saying that 'Severely mentally disabled patient can be treated' under general anesthesia and only (27.4%) saying using sedation, which both selection considered as correct answer. This means that dentists have not enough knowledge about 'Severely mentally disabled patient can be treated', whereas more than half of dentists chosen the wrong answer. One reason for this issue might be that the dentists have lack for how willing with special needs patients.

Regarding the statement major barriers in treating special health care needs patient 45(19.2%) of the dentists saying that the major barrier is communication difficulties, 22 (9.4%) said facilities availability, 19 (8.1%) said financial barrier and 148(63.2) said combination option.

Regarding the statement 'the source of your knowledge about special care dentistry come from (66.2%) (155 out of 234) of dentists saying from lectures, followed by training of 12.8% and from internet of about (10.7%). However, only (10.3%) of the selection all of the above, which was considered as the correct answer. This reflects that the dentists have lack of information about the source of knowledge and dentist knowledge's towards treatment planning for persons with disabilities.

4.3Attitude of dentists concerning the special needs patients

Psychological issues such as the attitudes and behaviors of dentists, with concerning management of special needs patients towards dental care can also impede delivery of care. The study has, therefore, used both attitudes and behaviors (in the form of a questionnaire survey) in gathering opinions on the research issues. The following table presents the attitudes of dentists in this survey:

Table 4.3.1: Descriptive statistics of dentist's attitude concerning the special needs patients.

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std.
1.You believe that the dentist has the right to refuse treating SNP*	62 26.5%	80 34.2%	50 21.4%	16 6.8%	26 11.1%	3.58	1.258
2.You believe that patients with special needs should receive equal treatment as any other normal patients.	81 34.6%	118 50.4%	26 11.1%	3 1.3%	6 2.6%	4.13	0.851
3.You think that all mentally disabled patients need sedation before treatment.	25 10.7%	54 23.1%	41 17.5%	40 17.1%	74 31.6%	2.64	1.405
4. You think that your dental education prepare you to treat patient with special care needs.	15 6.4%	24 10.3%	32 13.7%	109 46.6%	54 23.1%	3.66	1.161
5 .You believe that the communication between dentist and special needs patient will be effective in treatment.	50 21.4%	83 35.5%	48 20.5%	37 15.8%	16 6.8%	3.49	1.187
6. You feel confident in providing care for patient with special needs.	37 15.8%	42 17.9%	49 20.9%	51 21.8%	55 23.6%	3.14	1.392
7. You feel that SCD* should be a part of undergraduate course.	87 37.2%	105 44.9%	22 9.4%	7 3.0%	13 5.5%	4.05	1.043
8. You believe that SNPs should be treated by specialist rather than GP*.	67 28.6%	84 35.9%	37 15.8%	24 10.3%	22 9.4%	3.64	1.256
Overall	-	-	-	-	-	**3.54**	**1.194**

SNP*= Special need patients. SCD* =Special care dentistry .

Table 4.3.1, presents the percentage of frequencies of strongly disagree, disagree, neutral, agree and strongly agree of the sample. The analysis of the responses might be more facilitated if the mean values with standard deviations of response in relation to the statements are reported. Therefore, the above table presents the mean scores and standard deviations of the dentists towards the 8 statements. It should be noted that to facilitate the reporting and analysis, the ‘strongly disagree' and the disagree columns have been merged to disagree and similarly, the ‘strongly agree' and the ‘agree' columns have been merged to agree in the discussion.

It shows that dentists of about (142 out of 234) (60.7%) in this survey agreed on the believe that the dentist has the right to refuse treating special needs patients, but only (42 out of 234) (17.9%) of dentists disagree, whereas(50 out of 234) (21.4%) of dentists selected the ‘neutral‘ option. This table also, shows that the mean score and standard deviation of the dentists to the statement relating the right to refuse treating special needs patients are 3.58 and 1.258 respectively, it is notable that the mean score of the responses is higher than 3.0 (the mid score of the 5 point scale), which is means that the majority of respondents have the believe that the dentist has the right to refuse treating special needs patients. The results indicate that the dentists in Benghazi tend to be dominated by bad attitude on dealing with treating special needs patients, and that the dentist’s attitude play an important role in treating special needs patients.

More than two third of respondents agree in this study reported that patients with special needs should receive equal treatment as any other normal patients of about 85.0% (199 out of 234), while only 3.9% (9 out of 234) disagree that patient with special needs should receive equal treatment as any other normal patients, and 12.4% (29 out of 234) of dentists selected the neutral option. Therefore, Table presents the mean scores and standard

deviations of the responses towards this statement are 4.13 and 0.851 respectively. It is encouraging that the statement stating that patients with special needs should receive equal treatment as any other normal patients has obtained highest mean value. This result implies that dentists do not play any significant role in special needs patients.

In relation to the statement ,you believe that all mental disabled patients need sedation before treatment' of about 33.8% (79 out of 234) agree for this statement, and only 17.5% (41 out of 234) of dentists selected the 'neutral' option. Although 48.7% (114 out of 234) disagree for this statement. This might happen because most of the dentists have a good attitude, which are not believe that all special needs patients need sedation before treatment. Furthermore, Table illustrates that the mean scores and standard deviations of the responses towards this statement are 2.69 and 1.405 respectively. This statement has been assigned the lowest mean value in the case of all attitude of dentists concerning the special needs patients, which means that dentists disagree for using sedation before treatment.

The majority of respondents in this statement disagreed on the believe that their dental education prepared them to treat SNPs. 163 (69.7%) only39 (16.7%) of the dentists agreed that their dental education prepared them to treat SNPs and 32 (13.7%) of dentists selected the 'neutral' option. In addition, Table provides that the mean scores and standard deviations of the responses towards this statement are 3.66 and 1.161 respectively.

Concerning opinions on the statement you believe that the communication between dentist and special needs patient will be effective in treatment' was agreed with by the highest number 133 (56.9%) of respondents, while only 22.6% of dentists were disagree with this opinion, and 20.5% of dentists selected the 'neutral' option. One reason for this

might be that the dentists have neither the required expertise nor can they give much time to the special needs patient. Therefore, the above table presents the mean scores and standard deviations of the dentists towards this statement are 3.49 and 1.187 respectively, which was the highest level of agreement opinion about the communication between dentist and special needs patient will be effective in treatment.

Concerning opinions on the statement you feel confident in providing care for patient with special needs. Majority of dentists disagreed of about106 (45.4%) and 79(33.7%) were agreed and 49 (20.7%) were neutral

It is seen in the above table that the dentists considered the statement of ‘you feel that SCD should be a part of undergraduate course was agreed of about 82.1% (192 out of 234), whilst only 8.5% was disagreed of dentists, and 9.4% of dentists selected the ‘neutral‘option. This indicates that most of the respondents had previous experience of insufficient present undergraduate curriculum concerning management of special needs patients. This table also, shows that the mean score and standard deviation of the dentists to this statement are of 4.05 and 1.043 respectively. Therefore, curriculum concerning management of special needs patients might be modified to increase a new dentist’s knowledge for how dealing with special needs patients.

Concerning opinions on the statement ‘you believe that the special needs patient should be treated by specialist rather than general practitioner was agreed with by the highest number 151 (or 64.5%) of respondents, whereas only 19.7% of dentists were disagree with this opinion, and 15.8% of dentists selected the ‘neutral‘ option. The above table presents the mean scores and standard deviations of the dentists towards this statement are 3.64 and 1.256 respectively, which was indicated that the highest level of

agreement opinion about the special needs patients should be treated by specialist rather than general practitioner.

Overall, Table 4.3.1, highlights the attitude of dentists concerning the special needs patients that the mean score of the overall responses (i.e. 3.54 on a 5-point scale), which indicates that the overall mean score attitude of dentists in Benghazi city have a reasonable satisfactory level.

4.4 Behavior of dentists concerning the special needs patients

This dimension was carried out to determine the behavior of Libyan dentists in Benghazi city concerning the special needs patients, so as to give them more incentive to increase their behavior. The following table summarizes the behavior of dentists concerning the special needs patients of the survey:

Table 4.4.1: Descriptive Statistics related to dentist's behavior

Questions	Answers	Number	Percentage
1. Did you receive adequate training for dental care of special needs patients?	- Yes	25	10.7
	- No	209	89.3
	Total	**234**	**100 %**
2. Do you read journals related to special care dentistry periodically?	- Yes	20	8.5
	- No	214	91.5
	Total	**234**	**100%**
3. Does the thorough medical history help you in management of special needs patients?	- Yes	194	82.9
	- No	40	17.1
	Total	**234**	**100%**
4. Do you think that the availability of special instruments and equipment are important in management of SNPs?	- Yes	168	71.8
	- No	66	28.2
	Total	**234**	**100%**
5. Can you manage mentally disabled patient in your dental clinic?	- Yes	31	13.2
	- No	203	86.8
	Total	**234**	**100%**
6. Can you manage physically disabled patient in your dental clinic?	- Yes	156	66.7
	- No	78	33.3
	Total	**234**	**100%**
7. Did you ever use general anesthesia in treatment of severely mental disabled patients?	- Yes	3	1.2
	- No	231	98.8
	Total	**234**	**100 %**
8. Do you use non-pharmacological method of behavior control rather than sedation and general anesthesia?	- Yes	211	90.2
	- No	23	9.8
	Total	**234**	**100%**
9. Are the facilities for treating patient with special health care needs available at your dental clinic?	- Yes	73	31.2
	- No	161	68.8
	Total	**234**	**100%**
10. Is it necessary to train special nurses to deal with special needs patients?	- Yes	155	66.2
	- No	79	33.8
	Total	**234**	**100%**

Table4.4.1 states that 209 (89.3%) of the dentists had not had received adequate training for dental care of special needs patients and only

25 dentists (10.7%) had had previous training in a related dental care of special needs patients. This indicates that most of the respondents had not previous training in a related dental care of special needs patients. The researcher believes that opinions of these training participants have significantly contributed to achieving dental care of special needs patients.

Table 4.4.1 states that 209 (89.3%) of the dentists had not had received adequate training for dental care of special needs patients and only 25 highlights that 214 (91.5%) of the dentists were not read journals related to special care dentistry periodically, while only 20 (8.5%) of dentists were read journals related to special care dentistry periodically. This happens because, unlike that dentists have participation in journals related to special care dentistry periodically, and therefore, they tend to be less likely to participation in these journals.

Table 4.4.1 also shows that 194 (82.9%) of the dentists answering 'yes' that medical history help us in management of special needs patient in order to perform their duties properly, while only40 (17.1%) of the respondents in this group saying 'no' that that medical history help us in management of special needs patient. This indicates that that medical history help us in management of special needs patient is enough compared to their time and efforts devoted to start again.

Table 4.4.1 demonstrates that 168 (71.8%) of dentists have answered 'yes' that management of these group of patients need special instruments, and only 66(28.2%) have answered 'no'. This result implies that, in the view of the dentists, the amount of instruments and equipment is necessary to successfully achieve the management of special needs patients.

It can be seen from Table that 203 out of 234 (86.8%) of the dentists answering cannot manage mentally disabled patient in their dental clinic, and only 13.2% answering 'yes'. This result implies that, in the view of the

dentists, the amount of instruments and equipment is not enough to successfully achieve the management of mentally disabled patient in Benghazi clinics.

In table 4.4.1, it is observed that 156 out of 234 (66.7%) of the dentists answering that they can manage physically disabled patient in their dental clinic, while only 33.3% answering ‘no’. This result implies that the dentists it can do manage physically disabled patient in their dental clinic. In contrast, the above result of manage mentally disabled patient in their dental clinic found opposite result.

Table 4.4.1 ,indicates that 231 (98.8%) of the dentists answering ‘no’ of the statement ‘Did you ever use general anesthesia in treatment of severely mental disabled patients’, only 1.2% answering ‘yes’ of this statement. As viewed by this group of respondents, ‘Did you ever used general anesthesia in treatment of severely mental disabled patients’ most affecting factor and is important in treatment of patient with special needs.

From the above table, it can be seen that 211 (90.2%) of the dentists answering ‘yes’ of ‘Do you use non-pharmacological method of behavior control rather than sedation and general anesthesia?’, whereas only 23 (9.8%) answering ‘no’ of this statement.

From the above table, it can be seen that 73 (31.2%) of the dentists answering ‘yes’ about the availability of facilities for treating SNP in their dental clinic whereas 161 (68.8%) answering ‘no’ about this statement.

4.5 Demographic characteristics association with knowledge

Knowledge on dental care is an important factor of special needs dental patients. This section examined the association of knowledge according to demographic characteristics in special needs dental patients. The following subsections summarizes the dentist's knowledge in this survey:

Table 4.5.1: Different types of special needs patients according to experience

Experience Group	Cerebral palsy	Autism	Medically compromised	Combination	Total
5 year	7	5	-	9	21
	33.3%	23.8%	-	42.9%	100.0%
5-10 year	23	32	2	29	86
	26.7%	37.2%	2.3%	33.7%	100.0%
11-15 year	21	6	6	25	58
	36.2%	10.3%	10.3%	43.1%	100.0%
16-20 year	11	4	3	17	35
	31.4%	11.4%	8.6%	48.6%	100.0%
21year or more	9	1	3	21	34
	26.5%	2.9%	8.8%	61.8%	100.0%
Total	71	48	14	101	234
	30.3%	**20.5%**	**6.0%**	**43.2%**	**100.0%**
$\chi^2 = 33.130$ df = 12 CC = 0.352 p-value = 0.001					

Table 4.5.1,show that about 71(30.3%) of dentists chosen cerebral palsy followed by 48 (20.5%) chosen autism, 14 (6.0%) chosen medically compromised and 101(43.2%) selected combination, which considered as the correct answer. A significant proportion of this issues of dentist's knowledge about different types of special needs patients according to experience group were statistically significantly (p-value=0.001). Therefore, it is quite clear from this table that there is association between different types of special needs patients and the experience group is of about (CC=0.352) specially 21 years and more.

Table 4.5.2: Dealing with mild mentally disabled patient according to age group

Age Group	As normal patient	As a normal patient with special percussions	Using sedation	Under general anesthesia	Total
Treat 26-30 year	17	17	8	2	44
	38.6%	38.6%	18.2%	4.5%	100%
31-35 year	33	17	1	1	52
	63.5%	32.7%	1.9%	1.9%	100%
36-40 year	18	21	2	-	41
	43.9%	51.2%	4.9%	-	100.0%
41year or more	63	26	8	-	97
	64.9%	26.8%	8.2%	-	100%
Total	131	81	19	3	234
	56.0%	**34.6%**	**8.1%**	**1.3%**	**100%**
$\chi^2 = 24.651$		df = 9	CC = 0.309	p-value = 0.003	

Table 4.5.2, presents a comparison among mild mentally disabled patient treatment selection according to age groups. It can be seen from this table that the total number of dentists select treated as normal patient 131 (56.0%). The dentists selected as normal patient with special precautions, 81 (34.6%) and 19 (8.1%) selected using sedation which considered as the correct answers. A small number of dentists selected under general anesthesia 3 (1.3%). This result indicates that most of the dentists have less than half percentage (42.7%) of dealing with the issue of how treated mild mentally disabled patient. It can be inferred from Chi square test results indicates that the differences observed in the dentists according to age groups is statistically significant (p-value =0.003). Interestingly, the association between dealing with this issue and the two age groups(26-30 years and 36-40 years) are of about (CC=0.309).

Table 4.5.3: Dealing with severe mentally disabled patient according to gender

Gender	As normal patient	As a normal patient with special percussions	Using sedation	Under general anesthesia	Total
Female	40	62	35	22	159
	25.2%	39.0%	22.0%	13.8%	100%
Male	22	15	29	9	75
	29.3%	20.0%	38.7%	12.0%	100%
Total	62	77	64	31	234
	26.5%	**32.9%**	**27.4%**	**13.2%**	**100%**
$\chi^2 = 11.220$ df = 3 CC = 0.214 p-value = 0.011					

Table 4.5.3, presents a comparison among severely mentally disabled patient treated selection according to gender. It can be seen that 62 (26.5%) of dentists select the option as normal patient, while 77 (32.9%) select the option as a normal patient with special percussions. The dentists selected using sedation are of 64 (27.4%) and a small number of dentists selected under general anesthesia 31 (13.2%), which considered as the correct answer. This result indicates that most of the dentists have less than half percentage of dealing with the issue of how treated severely mentally disabled patient. Therefore, it can be inferred from Chi square test results indicates that the differences observed in the dentists according to gender is statistically significant (p-value 0.011). Interestingly, the association between dealing with this issue and the gender is of about (CC=0.214). In this regard, we can conclude that males have more knowledge than females of chosen the correct options.

Table 4.5.4, presents a comparison among private and public clinic regarding major barriers in treating special health care needs patient. It can be seen that 26.2% of private clinics dentists select communication barriers as major cause of barrier in treating SNP compared to 16.6% of public clinics dentists. While 1.5% of private clinics dentists select facilities availability compared to 12.4% of the public clinics dentists. About financial barrier was selected by 31.8% of private clinics dentists compared to 5.9% of public clinics dentists, Combination of all these barriers were selected by 58.5% of private clinics dentists compared to 65.1% of public clinics dentists. The results suggest that there were statistical significance (p-value = 0.007).

Table 4.5.4: Major barriers in treating special health care needs patient according to clinic type

Clinic type	Communication difficulty	Facilities availability	Financial Barrier	Combination	Total
Private	17	1	9	38	65
	26.2%	1.5%	31.8%	58.5%	100.0 %
Public	28	21	10	110	169
	16.6%	12.4%	5.9%	65.1%	100.0 %
Total	45	22	19	148	234
	19.2%	**9.4%**	**8.1%**	**63.2%**	**100.0 %**
X^2 = 12.123 df = 3 CC = 0.222 p-value = 0.007					

Table 4.5.5: The source of knowledge about special care dentistry according to age group

Age Group	Lectures	Training	Internet	Combination	Total
26-30 year	25	4	4	11	44
	56.8%	9.1%	9.1%	25.0%	100.0%
31-35 year	41	3	3	5	52
	78.8%	5.8%	5.8%	9.6%	100.0%
36-40 year	29	8	2	2	41
	70.7%	19.5%	4.9%	4.9%	100.0%
41year or more	60	15	16	6	97
	61.9%	15.5%	16.5%	6.2%	100.0%
Total	155	30	25	24	234
	66.2%	**12.8%**	**10.7%**	**10.3%**	**100.0%**
$\chi^2 = 24.408$ df = 9 CC = 0.307 p-value = 0.004					

Table 4.5.5, shows a comparison among age groups with the source of knowledge about special care dentistry come from several way. Since It has been found that age groups have the source of knowledge about special care dentistry come from lectures of about 155 (66.2%), while only 30(12.8%) from training followed by 25(10.7%) from internet and 24(10.3%) from all of this sources. This reflects that most of the dentists have interested in lectures than the others sources of knowledge all of ages. The Chi square test results indicates that the differences observed in the dentists according to age groups is statistically significant (p-value =0.004) with association of about CC=0.307 more observed in age group (31-35 years). This leads them to becoming highly dependent on lectures knowledge about special care dentistry.

4.6. Demographic characteristics association with attitude

The goal of this section was to discover any similarities or differences in dentists attitudes (positive or negative), on which future local community-based rehabilitation could be developed. The following subsections summarizes the attitude of dentists concerning the special needs patients of the survey:

Table 4.6.1: All mentally disabled patients need sedation before treatment according to clinic type

Clinic Type	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Private	8	9	6	11	31	65
	12.3%	13.8%	9.2%	16.9%	47.7%	100.0%
public	17	45	35	29	43	169
	10.1%	26.6%	20.7%	17.2%	25.4%	100.0%
Total	25	54	41	40	74	234
	10.7%	**23.1%**	**17.5%**	**17.1%**	**31.6%**	**100.0%**
$\chi 2 = 14.425$ df = 4 CC = 0.241 p-value = 0.006						

Table 4.6.1, presents a comparison among the different opinions or attitudes of all mentally disabled patients need sedation before treatment according to clinic type. The result indicates that most of the dentists in both types of clinics have highest disagreement about this issue. It can be inferred from Chi square test results indicates that the differences observed in the dentists according to clinic type is statistically significant (p-value <0.006). Interestingly, the association between dealing with this issue and the types of clinics are of about (CC=0.241). Despite the fact that the majority of dentist's attitudes about all mentally disabled patients need sedation before treatment, private clinic dentist had more percentage of disagreement.

4.6.2. Dental education prepare denteist to treat patient with special care needs according to age groups.

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Total
26-30 years	6	7	8	12	11	44
	13.6%	15.9%	18.2%	27.3%	25.0%	100.0%
31-35 years	11	7	15	10	9	52
	21.2%	13.5%	28.8%	19.2%	17.3%	100.0%
36-40 years	5	9	5	10	12	41
	12.2%	22.0%	12.2%	24.4%	29.3%	100.0%
41+	15	19	21	19	23	97
	15.5%	19.6%	21.6%	19.6%	23.7%	100.0%
Total	37	42	49	51	55	234
	15.8%	**17.9%**	**20.9%**	**21.8%**	**23.5%**	**100.0%**
$\chi^2 = 8.425$ df =12 CC = 0.186 p-value = 0.751						

Table 4.6.2, presents a comparison among the different opinions or attitudes of dentist regarding dental education that prepare them to treat patient with special care needs according to age groups, where 27.3% of age group (26-30y) select disagree option for the statement compared to 28.8 % of age group (31-35 y) who select neutral of the statement. In age group (36-40y) 29.3 were strongly disagreed about the statement while in age group 41 and more 23.7% were strongly disagreed about the statement. It can be inferred from Chi square test results indicates that the differences observed in the dentists according to age groups is statistically not significant (p-value =0.751). Interestingly, the association between dealing with this issue and the age groups are of about (CC=0.186).

Table 4.6.3: The communication between dentist and special needs effective in treatment according to clinic type

Clinic Type	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Private	22	27	8	4	4	65
	33.8%	41.5%	12.3%	6.2%	6.2%	100.0%
Public	28	56	40	33	12	169
	16.6%	33.1%	23.7%	19.5%	7.1%	100.0%
Total	50	83	48	37	16	234
	21.4%	**35.5%**	**20.5%**	**15.8%**	**6.8%**	**100.0%**
$\chi 2 = 15.848$ df = 4 CC = 0.211 p-value = 0.003						

Table 4.6.3, shows that majority of dentists in this survey agreed that the communication between dentist and special needs patient will be effective in treatment. Therefore, it can be inferred from Chi square test results indicates that the differences observed in the communication between dentist and special needs patient according to clinic type is statistically significant (p-value =0.003) with association of about (CC=0.200).

These results indicate that dentists expressed different opinions in respect of the communication between dentist and special needs effective in treatment according to clinic type (private clinic).

Table 4.6.4: The communication between dentist and special needs effective in treatment according to gender

Gender	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Female	36	51	35	30	7	159
	22.6%	32.1%	22.0%	18.9%	4.4%	100.0%
Male	14	32	13	7	9	75
	18.7%	42.7%	17.3%	9.3%	12.0%	100.0%
Total	50	83	48	37	16	234
	21.4%	**35.5%**	**20.5%**	**15.8%**	**6.8%**	**100.0%**
$\chi^2 = 9.764$ df = 4 CC = 0.200 p-value = 0.045						

Table 4.6.4, shows that majority of dentists in this survey agreed that the communication between dentist and special needs patient will be effective in treatment 133 (56.9%). Therefore, it can be inferred from Chi square-test results indicates that the differences observed in the communication between dentist and special needs patient according to gender is statistically significant (p-value =0.045). Interestingly, the association between the communication between dentist and special needs patient according to gender of dentists of about (CC=0.200) with male predominance. This might happen because a good communication between dentist and special needs patient, it can be effective in treatments of SNPs.

4.6.5 Feel confident in providing care for patient with special needs according to Degree

Degree	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Total
B.D.S.	24	35	40	43	49	191
	12.6%	18.3%	20.9%	22.5%	25.7%	100.0%
Master	11	4	7	8	5	35
	31.4%	11.4%	20.0%	22.9%	14.3%	100.0%
Ph.D.	2	3	2	0	1	8
	25.0%	37.5%	25.0%	0.0%	12.5%	100.0%
Total	37	42	49	51	55	234
	15.8%	**17.9%**	**20.9%**	**21.8%**	**23.5%**	**100.0%**
$\chi^2 = 13.584$ df = 8 CC = 0.234 p-value = 0.093						

Table 4.6.5, presents a comparison among the different opinions or attitudes of all dentist according to degree. The result indicates that most of the dentists in the three degrees have highest disagreement about this issue. It can be inferred from Chi square test results indicates that the differences observed in the dentists according to degree is statistically not significant (p-value =0.093). Interestingly, the association between dealing with this issue and the degree are of about (CC=0.234).

4.7. Demographic characteristics association with behavior

The following table summarizes the behavior of dentists concerning the special needs patients of the survey:

Table 4.7.1: Management of mentally disabled patient in dental clinic and gender

Gender	Yes	No	Total
Female	15	144	159
	9.4%	90.6%	100.0%
Male	16	59	75
	21.3%	78.7%	100.0%
Total	31	203	234
	13.2%	86.8%	100.0%
$\chi 2 = 6.279$	df = 1	CC = 0.162	p-value = 0.012

Table 4.7.1, presents the gender with the answering the question about the dentists' behavior of managing mentally disabled patient in dental clinic. It can be seen from this table that the percentage of female answering 'Yes' was 15 (9.4%), and answering 'No' 144 (90.6%), whereas the percentage of male answering 'Yes' was 16 (21.3%), and answering 'No' 59 (78.7%). This resulted that the respondents are mostly answering 'No' of about (86.8%). Therefore, it can be inferred from Chi square test results indicates that the differences observed in the dentists according to gender is statistically significant (p-value =0.012). It is important to note that the association between answering this question with association of about (CC=0.162).

This reflects the finding that the respondents who participated in the questionnaire survey answering, there are not considered in dental clinics how to manage mentally disabled patient.

Table 4.7.2: Management of physically disabled patient in dental clinic according to degree

Degree	Yes	No	Total
B.D.S.	129	62	191
	67.5%	32.5%	100.0%
Master	21	14	35
	60.0%	40.0%	100.0%
Ph.D.	6	2	8
	75.0%	25.0%	100.0%
Total	156	78	234
	66.7%	33.3%	100.0%
$\chi 2 = 6.548$	df = 2	CC = 0.165	p-value = 0.038

Table 4.7.2, show that compression of degree with 152 (65%) of the dentists answering 'Yes' to manage physically disabled patient in their dental clinic, while only 82(35.0%) answering 'No'. Therefore, it can be inferred from Chi square test results that the differences observed in the dentists according to degree is statistically significant (p-value =0.038) with association of about (CC=0.165). This result implies that the dentists can do manage physically disabled patient in their dental clinic especially among B.D.S.

4.7.3. Use of non-pharmacological method of behavior control rather than sedation and general anesthesia according to experience

Experience Group	Yes	No	Total
< 5 years	19	2	21
	90.5%	9.5%	100%
5-10 Years	78	8	86
	90.7%	9.3%	100%
11-15 Years	54	4	58
	93.1%	6.9%	100%
16-20 Years	31	4	35
	88.6%	11.4%	100%
21+	29	5	34
	85.3%	14.7%	100%
Total	211	23	234
	90.2%	9.8%	100%
$\chi^2 = 1.60$ df = 4 CC = 0.083 p-value = 0.808			

It can be seen from Table 4.7.3, that (90.2%) of the respondent were using non pharmacological method of patients behavior control rather than sedation and general anesthesia while only 9.8% were not using such methods. In relation to years of experience, (11-15y) were using this method (non- pharmacological) by 54(93.1%) compare to 21y and more by 29(85.3%). The Chi square test results indicates that the differences observed in the dentists according to experience was statistically not significant (p-value =0.808).

4.7.4 Facilities for treating patient with special health care needs according to clinic type

Clinic type	Yes	No	Total
private	26	39	65
	40.0%	60.0%	100.0%
Public	47	122	169
	27.8%	72.2%	100.0%
Total	73	161	234
	31.2%	68.8%	100.0%
$\chi^2 = 3.25$ df =1 CC = 0.117 p-value = 0.07			

It can be seen from Table 4.7.4, that (40%) of the private dentists answering 'yes, about availability of facilities compared to27.8% of public clinic and (60%) of private clinic answering 'No' compared to 72.2% in public clinic. The Chi square test results indicates that the differences observed in the dentists according to clinic type statistically not significant (p-value =0.07).

Table 4.7.5 Training special nurses to deal with special needs patients according to clinic type

Clinic Type	Yes	No	Total
Private	52	13	65
	80.0%	20.0%	100.0%
Public	103	66	169
	60.9%	39.1%	100.0%
Total	155	79	234
	66.2%	33.8%	100.0%
$\chi 2 = 7.621$	df = 1	CC = 0.178	p-value = 0.006

It can be seen from Table 4.7.5, that 155 (66.2%) of the dentists answering ‘it is necessary to train special nurses to deal with special needs patients’, and only 79 (33.8%) answering ‘No’. The Chi square test results indicates that the differences observed in the dentists according to clinic type is statistically significant (p-value =0.006) with association of about CC=0.178 with predominance of private clinics. This result implies that, in the view of the dentists, it is necessary to train special nurses to deal with special needs patients

Chapter 5
Discussion

5.1 Discussion

Knowledge, attitude and behaviors of dentists have been identified as the three most important objectives in the treating people like SNP. This study measured these three components of dentists in Benghazi city toward management of special needs patients. Internationally, it has been noticed that there is a lack of clinical training in the management of people with special needs at both undergraduate and postgraduate levels. Also lack of education regarding the Special Needs Dentistry (SND) which consider to be the greatest barrier to achieving oral health outcome for this group.

In the current study the majority of dentists participating were females 159(67.9%) and 75(32.1%) were males (Table 4.2.1and Figure 4.2.1), the overall response rate was 94.4% (234 out of 248). A cover letter is helpful in obtaining higher response rate because it explains the target respondents about the purpose and importance of the study.

Provision of oral health care to SNPs requires specialized knowledge. The results of this study revealed that the dentists' knowledge about different types of SNPs, majority of them 101(43.2%) selected combination of choices like cerebral palsy ,autism and medically compromised patients which considered as the correct answer, while about 71(30.3%) of dentists chosen cerebral palsy followed by 48 (20.5%) chosen autism, 14 (6.0%) chosen medically compromised. A significant proportion of this issues of dentist's knowledge about different types of special needs patients according to experience group were statistically significantly (p-value=0.001). Therefore, it is quite clear from the this table that there is association between knowledge of dentist about different types of SNPs and the experience group of about (CC=0.352) specially 21 years and more (Table 4.5.1). Experience in this field is apparently gained with increasing years of practice. This trend is obvious when the level of knowledge

according to the dentists of the respondents is considered. Experience groups differences in knowledge about different types of SNPs were statistically significantly association (p-value = 0.001). A significant proportion of those who had graduated over 21 years had adequate knowledge about types of SNPs. This study not matched with a study done by Waldman and Perlman in 2002 who reported that dentists lack to knowledge about providing care for patients with special needs and indicated that they did not have sufficient clinical experiences with these patients during their dental education [44].

Regarding comparison of knowledge of dentist about dealing with mild mentally disabled patient in treatment selection according to age groups. Results revealed that the total number of dentists select treated as normal patient 131 (56.0%). The dentists selected as normal patient with special precautions 81 (34.6%) and 19 (8.1%) selected using sedation which considered as the correct answers. A small number of dentists selected under general anesthesia 3 (1.3%). This result indicates that most of the dentists have less than half percentage (42.7%) of dealing with the issue of how treated mild mentally disabled patient. In terms of the need for protective support, not all patients with mild mentally disabled are candidates for sedation or general anesthesia, and so the use of protective support, however controversial, remains a viable option for treating these patients.

It can be inferred from Chi square test results indicate that the differences observed in the dentists according to age groups is statistically significant (p-value =0.003). Interestingly, the association between dealing with this issue and the two age groups (26-30 years and 36-40 years) are of about (CC=0.309) (Table 4.5.2).This indicate that age group 36-40 are more

knowledgeable about treating mild mentally patient as normal with special precautions.

Table 4.5.3 show a comparison of dentist knowledge about how to deal with severe mentally disabled patient with regard to treatment selection according to gender. It can be seen that 77 (32.9%) of dentists select the option as normal patient, while 62 (26.5%) select the option as a normal patient with special percussions. The dentists' selected using sedation were 64 (27.4%) and a small number of dentists selected under general anesthesia 31 (13.2%), which considered as the correct answer. This result indicates that most of the dentists have less than half percentage of dealing with the issue of how treated severely mentally disabled patient. Therefore, it can be inferred from Chi square test results indicates that the differences observed in the dentists according to gender is statistically significant (p-value 0.011). Interestingly, the association between dealing with this issue and the gender is of about (CC=0.214). In this regard, it can be concluded that in general dentist were lacking proper knowledge regarding dealing with sever mentally disabled patients and females were having less knowledge than males of chosen the correct options (Table 4.6.3). This Disagree with result of study conducted by Bindal et al in Malaysia (2015) [33].

A comparison among private and public clinic regarding knowledge about major barriers in treating SNPs revealed that 17(26.2%) of private clinics dentists select communication barriers as major cause of barrier in treating SNPs compared to28 (16.6%) of public clinics dentists. While 1 (1.5%) of private clinics dentists select facilities availability compared to21 (12.4%) of the public clinics dentists. About financial barrier was selected by 9(31.8%) of private clinics dentists compared to 10 (5.9%) of public clinics dentists. Combination of all these barriers were selected by 38

(58.5%) of private clinics dentists compared to 110 65.1%) of public clinics dentists. The results suggest that there were statistical significance (p-value = 0.007).This is inconsistent to the findings of Milano and Seybold (2002) who reported that the financial barrier is the major obstacle [50].

In the current study the major barriers according to the clinic type were communication difficulties and facilities availability, this was similar to results found in study done by Charteris, 2001 and Edwards 2002. [40,24]

The source of knowledge about special care dentistry come from several ways, among age groups of dentist included in this study, it has been found the main source of knowledge about special care dentistry come from lectures of about 155 (66.2%), while only 30(12.8%) from training followed by 25(10.7%) from internet and 24(10.3%) from all of these sources. This reflects that most of the dentists of all ages have interested in lectures than any other source of knowledge. The Chi square test results indicates that the differences observed in the dentists according to age groups is statistically significant (p-value =0.004) with association of about CC=0.307 more observed in age group (31-35 years). This leads them to becoming highly dependent on lectures knowledge about special care dentistry while majority of them not depending on other sources of knowledge like training or internet among all age groups of dentists (Table4.5.5) This is in consistent with what was found by Casamassimo et al, 2004 [26] .

The treatment of disabled persons is very difficult and time consuming. It requires a special psychological approach and often pre medication. In terms of the need for protective support, not all patients with mentally disabled are candidates for sedation or general anesthesia, and so the use of protective support, however controversial, remains a viable option for treating these patients. In the present study the attitude of dentist

towards certain issues in dental practice with SNPs, revealed that most of the dentists in both types of clinics have highest disagreement about the statement that all mental disabled patients need sedation before treatment. In comparison of the different opinions or attitudes according to clinic type, it is found that 31(47.7%) of private clinic dentist strongly disagreed versus 43(25.4%) of public. It can be inferred from Chi square test results indicates that the differences observed in the dentists according to clinic type is statistically significant (p-value = 0.006). Interestingly, the association between dealing with this issue and the types of clinics are of about (CC=0.241) (Table 4.6.1)

Despite the fact that the majority of dentist's attitudes about all mental disabled patients need sedation before treatment, had more percentage of disagreement in this study with predominance of dentist working in private clinic. This is the same as what was reported by Mochizuki (2007) [51].While it is not matched with study conducted by Pantucek et al, 2008) [31].

Another key aspect of this study centered on receiving education and clinical preparation at the undergraduate level. High percentage of respondents were not agree that the dental education prepared them to treat patient with special care needs. A comparison among the different opinions or attitudes of dentist regarding dental education that prepare them to treat patient with special care needs according to age groups, majority of them were not agree about the statement especially with age group 36-40 y where about 22(53.7%) compared to only about 19(36.5%) among 31-35y . It can be inferred from Chi square test results indicates that the differences observed in the dentists according to age groups is statistically not significant (p-value =0.751). Interestingly, the association between dealing with this issue and the age groups are of about (CC=0.186).This

mean that most of the dentists think that they were not prepared well in undergraduate level to treat the SNPs (Table 4.6.2). These finding matched to the study conducted by Casamassimo et al, 2004 [26] and Dao et al, 2005 [13] and Block (1980) [47].

Learning of appropriate interpersonal communication skills is an essential entity of health care professionals. The results indicate that dentists expressed different opinions in respect of the communication between dentist and special needs effective in treatment according to clinic type. The majority of dentists in this survey 133(56.9%) agreed that the communication between dentist and SNPs will be effective in treatment. Comparing between private and public clinic dentist it was observed that private clinic show more agreement regarding this concept 49(75.3%) versus 84(49.7%) in public clinic. Therefore, it can be inferred from Chi square test results indicates that the differences observed in the communication between dentist and SNPs according to clinic type is statistically significant (p-value =0.003) with association of about (CC=0.200). (Table 4.6.3).These finding were the same as a survey conducted by Oredugba in Nigeria, 2006. [42].

Good communication of dentist is very effective in treatment of SNPs. Majority of dentists in this survey agreed that the communication between dentist and SNPs will be effective in treatment 133 (56.9%). In comparison between male and female dentist, it seems that male dentist express more positive attitude towards effectiveness of communication in treatment of those groups 46 (61.4%).

Therefore, it can be inferred from Chi square-test results indicates that the differences observed in the communication between dentist and SNPs according to gender is statistically significant (p-value =0.045). Interestingly, the association between the communication between dentist

and SNPs according to gender of dentists of about (CC=0.200) with male predominance. (Table 4.6.4) This is in agreement with Bindal et al, 2015 in Malaysia [33].

Many dentists have been reported to have low confidence in their ability to treat patients with special needs. A lack of confidence amongst dentists leads to a reduction in providing care to SNPs in practice. Dentist were inquired about their current felling of confidence in providing care to SNP according to their degree. The result indicates that most of the dentists have highest disagreement about this issue mainly among BDS group which constitute majority of the sample 191(81.6%).

The more experience dentist had with treating persons with intellectual disabilities, the more positive their attitudes concerning this population Wolff et al, 2004 [32].

In this study most of BDS 92(48.2%) were feeling less confident in providing care to SNPs, while Master 15(42.8%) and PhD dentist 5(62.5%) show more confident in treating SNPs. It can be inferred from Chi square test results indicates that the differences observed in the dentists according to degree is statistically not significant (p-value =0.093). Interestingly, the association between dealing with this issue and the degree are of about (CC=0.234) (Table 4.7.5) (Table 4.6.5). This was supported by studies conducted by Smith et al, (2010) [14], Oliver and Nunn, 1996 in England [45] and Wolff et al, 2004 [32] .

General dentists who were not exposed to SNPs during their practice were less likely to treat these patients in their clinic than those with such experience .The dentists' behavior regarding management of mentally disabled patient in dental clinic according to gender. It can be observed that the percentage of female that cannot manage mentally disable patients in dental clinic were about 144 (90.6%) compared to 59 (78.7%) of male. This

show that the respondents are mostly unable to manage mentally disable patient in their clinic of about (86.8%). Male dentist were able to deal with such patient more than female dentist (21.3%,9.4%) respectively. Therefore, it can be inferred from Chi square test results indicates that the differences observed in the dentists according to gender is statistically significant (p-value =0.012). It is important to note that the association between management and gender was with association of about (CC=0.162) (Table 4.7.1).This study consistent with another studies by Bershadsky and Kane in 2010 and Casamassimo et al (2004). [52, 26].

Regarding managing physically disabled patient in dental clinic, the result implies that the dentists can do manage physically disabled patient in their dental clinic especially among PhD. Where about 156 (66.7%) of the dentists mentioned that they can manage physically disabled patient in their dental clinic, while only 78(33.3%) cannot manage. Regarding degree, PhD dentist were more able to manage physically disable patient 6 (75%) followed by B.D.S. 129 (67.5%) and Master 21 (60%). It can be inferred from Chi square test results that the differences observed in the dentists according to degree is statistically significant (p-value =0.038) with association of about (CC=0.165) (Table 4.7.2).This indicate that higher degree can treat physically disable patient more comfortably because they more experiences in dealing with such patients. The use of sedation and general anesthesia, apart from the extra cost, also carries some risks which may not be easily managed by untrained dentists. Majority of dentists surveyed used the non-pharmacological method of behavior control more frequently than sedation and general anesthesia. In this study with regard to the use of non-pharmacological method for patient behavior control rather than sedation and general anesthesia according to experience ,it was noticed that 211(90.2%) of the respondent were using non pharmacological

method while only 23 (9.8%) were not using such methods. In relation to years of experience (11-15y) group were using this method (non-pharmacological) by 54 (93.1%) compare to 21y and more group by 29(85.3%). The Chi square test results indicates that the differences observed in the dentists according to experience was statistically not significant (p-value =0.808) and the association between this issue and experience are of about (CC=0.083) (Table 4.7.3). This was agree with these finding agree with study conducted by Oredugba, 2006 in Nigeria [42] .Poor facility accessibility is probably a factor in patient failing to seek care. In the current study availability of facilities for treating SNPs were inquired according to clinic type. It can be seen from data that 39 (60%) of dentists working in private clinics reported that good facilities for treating SNPs were not available in their clinics compared to 122(72.2%) of those in public clinic. It is clear that facilities were less available in public clinic than private although Chi square test results indicates that the differences observed in the dentists according to clinic type statistically not significant (p-value =0.07) (Table 4.7.4).

Clinical Nurse Specialists are familiar with problems related to SNPs. They improve the situation of dealing with disabled patients in their clinics. It can be seen from this research work that about 155 (66.2%) of the dentists stated that there should be a trained special nurses to deal with SNPs. According to type of clinic dentists working in private insist that training of special nurse is necessary to deal with SNPs 52(80%) compared to 103(60.9%) in public. The Chi square test results indicates that the differences observed in the dentists according to clinic type is statistically significant (p-value =0.006) with association of about CC=0.178 with predominance of private clinics. This result implies that, the dentists of private clinics emphasis that it is necessary to train special nurses to deal

with those patients. This matches with a study conducted by Dörscheln et al, 2013 in Germany [53] (Table 4.7.5).

Chapter 6
Conclusion and Recommendations

6.1 Conclusion

This study revealed that the dentist had a good knowledge regarding certain issues like, different types of SNPs and best time to treat them, major barriers in their management, meanwhile they were lacking knowledge about dealing with mild and severe mentally disabled patients.

Majority of dentist depend upon lectures as the main source of their knowledge and age groups 26-30 y were more knowledgeable about how to deal with mild mentally disable patient than other age groups with significant differences. More than two third of dentist with 21y experience were having good knowledge about types of SNPs with highly significant difference

A significant difference were noticed between male and female dentist regarding how to deal correctly with sever mentally disabled patient. Majority of dentists knew the major barriers in treating SNPs with predominance of dentists in public clinic

The attitude of the dentists included in this study were positive in different concerns like the right of SNPs to be treated as others, the need of using sedation in treatment of all mentally disabled patient ,the effectiveness of communication between dentists and mentally disable patient and lastly the importance of SCD as a part of undergraduate curriculum .

The dentist were having negative attitude towards the right of dentist to refuse treating SNPs, methods prepare them to treat such groups and feeling confident in providing care to them. Majority of dentist were agree about SNPs should be treated by specialist rather than GDPs.

Most of the BDS dentist were not feeling confident in treating SNPs compare to Master and PhD who were feeling more confident with a significant difference.

The majority of dentists did not receive adequate training and did not read journals in treating SNPs also the majority of them cannot manage mentally disabled patients, most of them did not use GA in treatment and there were lacking of facilities in the clinics

Some good behavior were recorded in this study like ability of managing physically disabled patient and using of non-pharmacological methods and importance of training special nurse to deal with SNPs and using of special instruments and equipment.

More than 90% of female dentists cannot manage mentally disable patient with significant difference with male dentists. About 75% of PhD dentists were able to manage physically disable patient with significant difference between them and other degree.

More than 90% of dentist with 1-15y experience were using non-pharmacological methods to control behavior

Most of the clinic were lacking the facilities for treating SNPs with predominance of public clinic.

6.2 Recommendation

This study will hopefully add to the literature on SNPs from the perspective of dentists practices and also will contribute to the development of Benghazi dental clinics. It is hoped that future researchers will be able to carry through the issues highlighted by this study, add and modify the questionnaire and also extend the avenues that the study has opened up.

In this thesis some general recommendations have been made, which may serve to advance the dentist's knowledge, attitude and behavior that affect the dentists concerning with the SNPs.

1. Modification of the present undergraduate curriculum concerning management of special needs patients might be increase a new dentist's knowledge;
2. Promoting dentists' education and providing training for concerning with different types of SNPs
3. Undertaking investigation and inspection and inquiries of any instruments and equipment's needs for disable people of dental clinic.
4. Conducting research in other areas and publishing information.

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Appendix

Questionnaires for assessing Knowledge, Attitude, and Behaviors of dentists in Benghazi city toward management of special needs patients:

A. Demographic variable:

1. Age:

2. Gender: M F

3. Experience:

4. Degree: -BDS -Master -PhD

5. Specialty:

6. Clinic type: Private public

B. Knowledge of dentists concerning the special needs patients:

1. Different types of special needs patients:

a. Cerebral palsy.

b. Autism.

c. Medical compromised.

d. Combination

2. Mental retardation includes:

a. Down syndrome.

b. Deafness.

c. Blindness.

d. Combination

3. Patient with difficulty in swallowing associated with:

a. Cerebral palsy.

b. Down syndrome.

c. Autism.

d. Combination

4. The best time to treat a special needs patients is:

a. Early morning.

b. Late morning.

c. Late afternoon.

d. Any time during the day.

5. Dealing with mild mentally disabled patient:

a. As normal patient.

b. As normal patients with special percussions.

c. Using sedation.

d. Under general anesthesia.

6. Dealing with severely mentally disabled patient:

a. As normal patient.

b. As normal patients with special percussions.

c. Using sedation.

d. Under general anesthesia.

7. The major barrier in treating patient with special health care needs

a. Communication difficulty.

b. Facilities availability.

c. Financial barrier.

d. Combination

8. The source of your knowledge about special care dentistry come from:

a. Lectures.

b. Training.

c. Internet.

d. Combination

C. Attitude of dentists concerning the special needs patients:

1. Do you believe that the dentists has right to refuse treating special needs patients?

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

2. Do you believe that patients with special needs should receive equal treatment as any other patients?

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

3. Do you think that all mental disabled patients need sedation before treatment?

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

4. Do You think that your dental education prepare you to treat patient with special care needs.

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

5. Do you believe that the communications between dentists and special needs patients will be effective in treatment?

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

6. Do you feel confident in providing care for SNPs?

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

7. Do you feel that SCD should be a part of undergraduate course?

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

8. Do you believe that the special needs patient should be treated by specialist rather than GDP?

Strongly agree. Agree. Neutral. Strongly disagree. Disagree.

D. Behavior of dentists concerning the special needs patients:

1. Did you receive adequate training for dental care of special needs patients?

-yes. - No.

2. Do you read journals related to special care dentistry periodically?

-yes. - No.

3. Does the thorough medical history help you in management of special needs patients?

-yes. - No.

4. Do you think that special instruments and equipment are needed in management of SNPs?

-yes. - No.

5. Can you manage mentally disabled patients in your dental clinic?

-yes. - No.

6. Can you manage physically disabled patients in your dental clinic?

-yes. - No.

7. Did you ever used general anesthesia in treatment of severely mental disabled patients?

-yes. - No.

8. Do you use non-pharmacological method of behavior control rather than sedation or GA?

-yes. - No.

9. Are the facilities for treating patient with special health care needs available at your dental clinic?

-yes. - No.

10. Is it necessary to train special nurses to deal with special needs patients?

-yes. - No.

Thank you

معلومات وتوجهات وممارسات أطباء الأسنان في معالجة ذوي الاحتياجات الخاصة في مدينة بنغازي.

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أ. د . خديجة حرويس

الملخص العربي

الخلاصة: الأشخاص من ذوي الاحتياجات الخاصة فئة مهمة في المجتمع لم يتوفر لها خدمات مناسبة وجيدة في معالجة الأسنان.

دراسة وصفية مقطعية تهدف لمعرفة معلومات واتجاهات وممارسات أطباء الاسنان في مختلف عيادات بنغازي وشملت العينة اطباء ليبيون عاملون بالعيادات العامة والخاصة وعددهم 234طبيب وطبيبة.

تم تجميع البيانات باستخدام استبيان صمم خصيصا للدراسة وتم تعديله واختباره من قبل المشاركين بالدراسة.

النتائج: حجم العينة 234 مشارك منهم 32.1% ذكور و67.9% اناث.

أكثر من 63% كانت لديهم معلومات صحيحة وجيدة حول بعض الأسئلة المطروحة مثل وجود الإعاقة الذهنية لدى مرضى متلازمة داون وصعوبة البلع لدى مرضى الشلل التشنجي وكذلك كانوا مدركين للصعوبات التي تواجه طبيب الأسنان في تقديم الخدمة لمثل هؤلاء المرضى.

وكذلك أظهرت الدراسة أن حوالي 45% من الأطباء كانوا لا يشعرون بالراحة التامة اثناء تعاملهم مع هؤلاء المرضى وأن أغلبهم يعتقد بأن التواصل الجيد مع المرضى سبب أساسي في نجاح العلاج كذلك غالبيتهم لم يتلقوا التدريب الكافي لتأهيلهم لتقديم خدمات خاصة لهؤلاء المرضى وأنهم غير قادرين على معالجة المرضى دو الإعاقة الذهنية في عياداتهم.

الخلاصة والتوصيات: بصفة عامة أغلب أطباء الأسنان المشاركين في الدراسة كانت لديهم معلومات جيدة فيما يتعلق بأنواع الإعاقات والاوقات المناسبة لعلاجهم في حين ان هناك بعض القصور في المعلومات لديهم حول كيفية التعامل مع المرضى شديدي الإعاقة الذهنية.

وأنهم يعتقدون ان يجب مساواة المرضى ذوي الاحتياجات الخاصة في العلاج بغيرهم من المرضى وكانوا مؤمنين بأهمية التدريب خلال المنهج الدراسي لتمكينهم من معالجة المرضى بطريقة صحيحة.

وبالرغم من ضعف الإمكانيات في عيادات الأسنان الا أن الدراسة لاحظت بعض الممارسات الجيدة للأطباء مثل مقدرتهم على معالجة المرضى ذوي الإعاقة الجسدية واستعمالهم لطرق سلوكية غير دوائية لتهيئة المريض لجلسات العلاج وركزوا على أهمية تدريب ممرضات مؤهلات لهذا الغرض.

وتوصي الدراسة بمزيد من البحوث المستقبلية في هذا المجال لتوضيح أعمق لبعض القضايا المعروضة في هذه الدراسة.

معلومات وتوجهات وممارسات أطباء الاسنان في معالجة ذوي الاحتياجات الخاصة في مدينة بنغازي

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كلية طب وجراحة الفم والاسنان

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