

Career Development Plans of Dental Students at Muhimbili

University of Health and Allied Sciences, Tanzania

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Abstract

Examining dental students' career development plans contributes to understanding of their professional expectations and planning of human resource for health within a health system. This study aimed to investigate the career development plans of Dental students at the Muhimbili University of Health and Allied Sciences (MUHAS). A cross-sectional study was performed by utilizing self-administered questionnaires, as data collecting tools. The questionnaires were distributed to all Dental students who participated in the study in 2014 (n=100). In the survey, students were asked about their socio-demographic characteristics, career development plans, future intensions and their areas of choice for their future career. The survey revealed that most students had decisive thoughts and sufficient knowledge about their future career. Majority of the students planned to practice as Dental professionals in Tanzania (39%), particularly in urban areas (chosen by 83%). Also, many students (72%) preferred to become prospective clinical scientists, especially in the fields of "Oral and Maxillofacial Surgery" and "Orthodontics and Dentofacial Orthopaedics". In the survey, the role of socio-demographic factors on students' career development plans was also identified. Where, most female students compared to males reported that they prefer to work in urban areas. Additionally, many older students than younger ones favored to pursue clinical sciences in future. Although this study showed various perspectives regarding career development plans of Dental students in Tanzania, Universities need to ascertain professional counseling sessions and mentorship programs so that most students will be able to make informed decisions on their future career. Ultimately, the understanding of Dental students' career development plans will facilitate planning of human resource for oral health and ensure their availability in many areas of Tanzania.

Keywords

career development plans, Dental students

1. Introduction

Several studies have been performed on career development plans of Dental students worldwide (Freire et al., 2011; Dhima et al., 2012; Aggarwal et al., 2012; dos Santos et al., 2013; Knevel et al., 2015; Sam, 2015; Sam et al., 2016; Nassar et al., 2016), such studies are crucial for planning human resource for health (Knevel, Gussy, Farmer, & Karimi, 2015). Results from earlier studies, showed a wide range of viewpoints (Freire et al., 2011; Dhima et al., 2012; Aggarwal et al., 2012; dos Santos et al., 2013; Knevel et al., 2015; Sam, 2015; Sam et al., 2016; Nassar et al., 2016) related to career choices of Dental students. Generally, studies have indicated that Dental students' career choices are geared towards the students' own gains than towards the roles they are needed to play in their societies (Chattopadhyay & Chatterjee, 1991; Brand & Chikte, 1997; Vigild & Schwarz, 2001). The career choices of Dental students may vary over time and between populations (dos Santos, Nicolau, Muller, Bedos, & Zuanon, 2013), thus obtaining recent information about future career intentions of Dental students is vital for the country's health care system and for health educators (dos Santos et al., 2013; Sam, 2015). Essentially, the information can be utilized by health educators (Aguiar, Pessoa, Câmara, Perrier, & Figueiredo, 2009) and health professional employers to improve their services. Specifically, studies on career development plans of Dental students can assist employers to address dissimilarities in oral health services in different populations (Watt & Sheiham, 1999; Locker, 2000; Guay, 2004; Dal Poz et al., 2006). Moreover, it is understood that the willingness of Dental graduates to work in public health sectors and with socially deprived communities is largely required (dos Santos et al., 2013) by most Governments. On the other hand, the student's future career intentions, will determine the particular student's up-taking of a specific career path (Blue & Lopez, 2011). Thus, career development plans of Dental students do not often match or necessarily address the human resource need of a certain health system (Bernabé Icaza, & Delgado-Angulo, 2006; Aguiar et al., 2009). For instance, in Brazil it was reported that most students intended to work in private clinics and to become specialists after they graduate (Freire Mdo, Jordao, de Paula Ferreira, de Fatima Nunes, Queiroz, & Leles, 2011). In Tanzania, it was found in a previous study that most Tanzanian Dental students preferred to pursue their future careers in teaching and research (Kuusela, Honkala, Hausen, Rwakatema, Gyua, & Lampiranta, 1993). In line with the previous finding, there is still a great need of Dental health professionals in Tanzania, especially in rural areas. To date, the Dentist Population ratio in Tanzania is 1:120,000 and most of the Dentists are in urban areas. While the World Health Organization (WHO) recommended the ratio of 1:7500 (United Republic of Tanzania. Ministry of Health and Social Welfare, 2011).

For educators, it is important to establish career mentoring programs for students, as currently the advices given to students are mainly engaged towards issues of academic performances (Barnard & Pendlebury, 2000; Newton, Thorogood, & Gibbons, 2000). Little has been done to academic programs of many institutions in most developing countries to address the students' career development plans. Career mentoring programs for students can assist students to make informed decisions about their future career, such that their likelihood of undertaking various post-graduate programs will tend to

increase (Paquette & Sheets, 2004; Sam et al., 2016; Nassar et al., 2016). The Dental school in Tanzania has been the sole producer of under- and post-graduate Dental professionals in the country, since its conception in 1979. But, comprehensive data on the future career plans of its products and factors related to the students' career choices is lacking. If it was available, such data could be used by employers to plan human resource for oral health and by academic institutions to establish demand driven post-graduate programs (Sam, 2015). Further, the implication of lacking such information is that, some of the already established postgraduate programs in certain institutions are completely lacking applicants and some receive applicants intermittently. Regarding the factors that are related to students' career choices, researchers have identified many factors that determined the Dental students' future career choices. These factors include but not limited to Dental students' age, gender and their places of origin (Dhima, Petropoulos, Han, Kinnunen, & Wright, 2012). However, those factors may vary between countries, and over a definite period. Therefore, the aim of this study was to assess career development plans of Dental students at Muhimbili University of Health and Allied Sciences, in Tanzania.

2. Methods

2.1 Survey Method

This was a cross sectional survey that was conducted in 2014.

2.2 Target Population and Sample Population

It was a population of Doctor of Dental Surgery/DDS students (Dental students) of Muhimbili University of Health and Allied Sciences (MUHAS), in Dar es Salaam, Tanzania.

2.3 Sampling Method

Participating students were randomly selected from a population of all students who were present during the study period.

2.4 Sampling Process

Sampling procedure was based on an assumption of a previous prevalence of 93%, 1.96 standard deviation and 5% marginal error, to obtain the sample size required for the study. From the calculation, a sample of 100 Dental students was required for this survey. A list of all students was obtained from the office of the Dean, School of Dentistry, then the researcher randomly picked a number between one and five; the chosen number "n", enabled the researcher to pick every "nth" name from that list until the sample size of 100 students was reached.

2.5 Qualified Participants

A student's lack of time and commitment to participate in the study was the exclusion criterion set for the study. All the chosen students were able to participate fully in the survey.

2.6 Survey Administration Mode

A structured self-administered questionnaire was used to obtain information from Dental students. This information included socio-demographic factors and questions inquiring about career development

plans, future intentions and the students' areas of choice for their future careers.

2.7 Data Collection Methods

Prior to the study, ethical clearance was obtained from the ethical committee of MUHAS and permission to work with the students was sought from the School of Dentistry administration. A written informed consent was requested from each participant before the interview. Informed verbal consent was also requested from each participant. Then a pilot study was performed to a sample of 10 Dental students, in order to test the research instrument. From the pilot study, data collection method was considered valid in terms of time taken to fill in the questionnaire and clarity of the contents of the questionnaire. In the main survey, each participant was physically given a questionnaire and was supposed to fill it in and return it within a week. All 100 Dental students who participated in the survey returned the questionnaires. Thus, the return rate achieved was 100%. Duplicate questionnaires were administered to 10 Dental students, who initially filled the questionnaires during the main survey, at a time interval of one month. Analyses performed on duplicate questionnaire administration gave Kappa values of 0.552 on the item of students' interest towards studying Dentistry to 1.000 on the items of the students' career development plans, future intentions and the students' areas of choice in their future careers.

2.8 Data Analysis Method

The data collected in this study was entered into a Statistical Package for Social Sciences program (SPSS), version 20.0., and data was checked for errors. Then a series of descriptive statistics were undertaken on each of the question from the questionnaire. To assess association between variables, bivariate analysis was performed, utilizing a Chi-square test. The p -value of $p < 0.05$, was considered statistically significant.

3. Results

The study was done among 100 Dental students, most of them (73%) being males. Many students (61%) were between 19-25 years. Majority of the students (55%) originated from urban areas and some of them had a father or a mother who is a healthcare worker, 9.2% and 13.9%, respectively (Table 1).

Most students (77%) admitted to be very interested in doing Dentistry (Figure 1).

Seventy two percent (72%) of the Dental students reported that they frequently thought of their future careers. Most students planned to become Dentists in Tanzania (39%), immediately after graduation while few students (21%) chose to become future academicians (teachers). The intended places of practice for many students (83%) were urban areas. A student was then asked "if moving abroad was an option, why would you move?", 49% responded that they would move abroad for career opportunities or for continuing with postgraduate training whereas 48% would consider moving abroad for obtaining higher incomes. Most students (52%) thought it was necessary for Dentists to pursue also non-dental careers. Likewise, many (46%) thought that a career outside Dentistry would as well be successful to them (Table 2).

Seventy two percent (72%) of students wanted to base their careers in Clinical sciences. For those who chose Clinical sciences, 68.1% would prefer to pursue Clinical specialties whereas 31.9% preferred to remain as General Dental Practitioners. “Oral and Maxillofacial Surgery” and “Orthodontics and Dentofacial Orthopaedics” were the two favorite Clinical specialties, chosen by 57.1% and 20.4% of the students, respectively (Table 3).

In bivariate analysis, the relationship between the students’ career development plans and age as well as sex was analysed. Only sex was significantly related to remaining in urban areas, as work places, where; more female students than males intended to practice in urban areas ($p<0.05$) (Table 4).

There was no statistically significant relationship between students’ career development plans and students’ places of origin (urban or rural), as well as secondary schools they attended (private or public), prior to joining the University (Table 5).

In Table 6, the relationship between socio-demographics and the student’s area of choice to base his/her career on (Clinical sciences against Non-clinical sciences), was assessed. Only student’s age was significantly related to choosing a certain area to base his/her career on. Where, it was shown that, many older students (26-46 years) preferred Clinical sciences than younger students (19-25 years) ($p<0.05$).

Table 1. Percentage Distribution of DDS Students at MUHAS by Social Demographic Factors

Variable	Category	Number (n)	Percentage (%)
Gender	<i>Male</i>	73	73
	<i>Female</i>	27	27
Age	<i>19-25</i>	61	61
	<i>26-46</i>	39	39
Place of origin	<i>Urban</i>	55	55
	<i>Rural</i>	45	45
Type of secondary school attended	<i>Public</i>	57	57
	<i>Private</i>	43	43
Father’s occupation	<i>Businessman</i>	27	41.5
	<i>Peasant</i>	18	27.7
	<i>Engineer</i>	6	9.2
	<i>Teacher</i>	5	7.7
	<i>Doctor</i>	6	9.2
	<i>Others*</i>	3	4.6
Mother’s occupation	<i>Housewife</i>	29	36.7
	<i>Peasant</i>	18	22.8
	<i>Businesswoman</i>	10	12.7
	<i>Nurse</i>	11	13.9
	<i>Teacher</i>	9	11.4
	<i>Engineer</i>	1	1.3
	<i>Others*</i>	1	1.3

Others*= Chefs, Drivers, Personal secretaries.

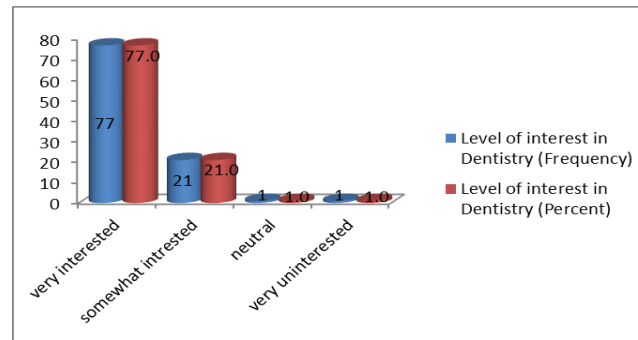


Figure 1. Percentages and Numbers of DDS Students at MUHAS by Their Level of Interest in Dentistry

Table 2. Percentage Distribution of DDS Students at MUHAS by Their Career Development Plans and Future Intentions

Variable	Category	Number (n)	Percentage (%)
Frequency of future career thoughts	<i>Rarely</i>	9	9
	<i>Sometimes</i>	19	19
	<i>Frequently</i>	72	72
Plans immediately after graduation	<i>Dentist in Tanzania</i>	39	39
	<i>Dentist abroad</i>	20	20
	<i>Post-graduate training in Tanzania</i>	12	12
	<i>Post-graduate training abroad</i>	17	17
	<i>Teaching</i>	5	5
	<i>Research</i>	6	6
	<i>Not yet decided</i>	1	1
Intended place of practice	<i>Urban</i>	83	83
	<i>Rural</i>	17	17
Type of workplace intended to work in future	<i>Dental school/ academics</i>	21	21
	<i>Private practice</i>	24	24
	<i>General hospital</i>	36	36
	<i>Public healthcare</i>	10	10
	<i>Public health administration</i>	2	2
	<i>Research institute</i>	5	5
	<i>International missionary</i>	2	2
If moving abroad is an option, give reasons	<i>Career opportunities/postgraduate training</i>	49	49
	<i>Higher salary</i>	40	40
	<i>Family reliance/Expectance on income</i>	8	8
	<i>Other</i>	3	3
Whether it is necessary for Dentists to also pursue other non-dental careers	<i>Yes</i>	52	52
	<i>No</i>	21	21
	<i>Neutral</i>	27	27
Whether careers outside dental practice would as well be successful	<i>Yes</i>	46	46
	<i>No</i>	42	42
	<i>Neutral</i>	12	12

Table 3. Percentage Distribution of DDS Students by Their Areas of Choice in Their Future Careers after Graduation

Variable	Category	Number (n)	Percentage (%)
What area do you want to base your career	<i>Basic sciences</i>	18	18
	<i>Clinical sciences</i>	72	72
	<i>Non-clinical dental fields</i>	4	4
	<i>Non-dental fields</i>	6	6
Area of choice in Clinical sciences	<i>General Dentistry</i>	23	31.9
	<i>Specialty area</i>	49	68.1
Specialty discipline in Clinical Dentistry	<i>Endodontics</i>	2	4.1
	<i>Oral and Maxillofacial Surgery</i>	28	57.1
	<i>Oral pathology</i>	1	2
	<i>Oral radiology</i>	1	2
	<i>Orthodontics and Dentofacial Orthopaedics</i>	10	20.4
	<i>Pediatric Dentistry</i>	5	10.2
	<i>Periodontics</i>	1	2
	<i>Prosthodontics</i>	1	2

Table 4. Percentage Distribution of MUHAS DDS Students by Their Career Development Plans, Future Intentions, Gender and Age

Variable	Category	Male	Female	<i>p-value</i>	19-25 years	25-46 years	<i>p-value</i>
		n (%)	n (%)		n (%)	n (%)	
Frequency of future career thoughts	<i>Rarely</i>	19 (26)	9 (33.3)	0.465	20 (32.8)	8 (20.5)	0.254
	<i>Frequently</i>	54 (74)	18 (66.7)		41 (67.2)	31 (79.5)	
Plans immediately after graduation	<i>Based in Tanzania</i>	44 (60.3)	18 (66.7)	0.646	37 (60.7)	25 (64.1)	0.834
	<i>Based abroad</i>	29 (39.7)	9 (33.3)		24 (39.3)	14 (35.9)	
Intended place of practice	<i>Urban</i>	57 (78.1)	26 (96.3)	0.036	52 (85.2)	31 (79.5)	0.586
	<i>Rural</i>	16 (21.9)	1 (3.7)		9 (14.8)	8 (20.5)	
Reasons for moving abroad	<i>Financial based</i>	39 (53.4)	9 (33.3)	0.114	31 (50.8)	17 (43.6)	0.541
	<i>Career</i>	34 (46.6)	18 (66.7)		30 (49.2)	22 (56.4)	
	<i>based/Others</i>						

Table 5. Percentage Distribution of MUHAS DDS Students by Their Career Development Plans, Future Intentions, Place of Origin and Type of Secondary School They Attended

Variable	Category	Urban	Rural	<i>p-value</i>	Public	Private	<i>p-value</i>
		n (%)	n (%)		n (%)	n (%)	
Frequency of future career thoughts	<i>Rarely</i>	14 (25.5)	14 (31.1)	0.655	12 (27.9)	16 (28.1)	1.000
	<i>Frequently</i>	41 (74.5)	31 (68.9)		31 (72.1)	41 (71.9)	
Plans immediately after graduation	<i>Based in Tanzania</i>	33 (60)	29 (64.4)	0.683	23 (53.5)	39 (68.4)	0.149
	<i>Based abroad</i>	22 (40)	16 (35.6)		20 (46.5)	18 (31.6)	
Intended place of practice	<i>Urban</i>	49 (89.1)	34 (75.6)	0.108	36 (83.7)	47 (82.5)	1.000
	<i>Rural</i>	6 (10.9)	11 (24.4)		7 (16.3%)	10 (17.5)	
Reasons for moving abroad, if it is an option	<i>Financial based</i>	22 (40)	26 (57.8)	0.317	18 (41.9)	30 (52.6)	0.107
	<i>Career</i>	33 (60)	19 (42.2)		25 (58.1)	27 (47.1)	
	<i>based/Others</i>						

Table 6. Percentage Distribution of MUHAS DDS Students by Their Intended Areas to Base Their Careers in and Their Socio-Demographic Factors

Category	Sex		<i>p-value</i>	Age		<i>p-value</i>	Place of origin		<i>p-value</i>	Secondary school attended		<i>p-value</i>
	Male	Female		19-25 years	26-46 years		Urban	Rural		Public	Private	
	N (%)	n (%)		n (%)	n (%)		n (%)	n (%)		n (%)	n (%)	
<i>Clinical</i>	51 (69.9)	21 (78.8)	0.616	39 (63.9)	33 (84.6)	0.039	37 (67.3)	35 (77.8)	0.271	38 (66.7)	34 (79.1)	0.186
<i>Non-clinical</i>	22 (30.1)	6 (22.2)		22 (36.1)	6 (15.4)		18 (32.7)	10 (22.2)		19 (33.3)	9 (20.9)	

4. Discussion

In this study, majority of the students were males, the finding is in contrast to those reported in studies of Gallagher et al. (2009), Freire et al. (2011) and Rashid et al. (2013) among students in United Kingdom, Brazil and United Arab Emirates, respectively. In those studies, majority of their students were females. Accordingly, efforts should be made to increase the number of females in Tanzanian oral health sector, so that the upcoming dental work force is equally split between sexes. In addition, parental influence seem not to have a significant part in the present students' decision to do Dentistry, since only a smaller percentage of students had parents who were medical practitioners. Similarly, most students (77%) acknowledged being very interested in doing Dentistry. A much higher percentage (96.3%) was obtained in a study by Stewart et al. (2004) among students in Manchester, England. In contrast, a study by Coombs (1978) among American and Swedish students, a strong parental influence on students' career choices was pointed out. Nonetheless, the current finding is comparable to that obtained by Knevel et al. (2015) among Nepalese Dental students. It is promising to learn that students'

own aspirations play an important role in Dental career choice, as it hints on the possibility of students to remain longer in the Dental profession.

Presently, seventy two percent (72%) of Dental students reported that they frequently thought of their future career choices. Likewise, studies by Sam et al. (2016) among Saudi students and Nassar et al. (2016) among Canadian students showed that most of their students had clear ideas about their future career choices. Such findings are logical because the choice of a career is a critical decision, with a strong influence on one's future (Halawany, 2014). In contrast, Almasri and Nourah (2015) found that only a smaller percentage of their students were able to make decisions about their future career choices. In general, for students with indecisive thoughts and insufficient knowledge about their future career, it is important for institutions to formulate programs that will enlighten students on which career paths to take. Examples of such programs include profession counseling programs (Sam, Alghmlas, Alrashed, & Alaskar, 2016), career presentation forums and mentorship platforms (Nassar, Fairbanks, Flores-Mir, Kilistoff, & Easton, 2016). Concerning the students' plans immediately after graduation, in the current study most students (39%) planned to become Dentists in Tanzania. This decision is probably based on the fact that, there is a possibility of securing employment in the Government soon after graduation, and hence attaining an impending job security privilege. Comparable results were obtained by Sam et al. (2016) among Saudi Dental students, where most of their students preferred to work under their Ministry of Health. Regarding the present students' intent to work as academicians, few students (21%) claimed that they intended to work in academics, and even a lesser percentage of students (5%) thought of pursuing academic posts right after they graduate. Conversely, in a study by Dastjerdi et al. (2012) among Iranian Medical and Dental students, it was reported that many Dental students (80%) chose to pursue an academic position in future. However, varying results were documented in a Canadian study (Nassar et al., 2016), where the proportion of students who considered teaching as their future career ranged from 26%-68%. Studies by Rupp et al. (2006) and Chmar et al. (2008) suggested that students in general lack knowledge or information needed to make informed decisions to cogitate teaching as a career. Overall, it should be emphasized that initiation of activities such as mentoring programs as well as curriculum reforms in Universities, is particularly vital for students. In this study, a majority of Dental students (83%) selected urban areas as their intended place of practice. This finding aligns with those documented in studies of Orenuga and da Costa (2006), Mariño et al. (2012) and Knevel et al. (2015) among Nigerian, Australian and Nepalese dental students, respectively. The finding in the current study implies that rural Tanzanian dwellers will continue to fall short of essential services that are to be delivered by these prospective health professionals. Consequently, the finding calls for strategies to improve rural health care services so as to attract Tanzanian health professionals to work in rural areas. The strategies may include but not limited to setting-up incentive schemes for health professionals, improvement of infrastructure, availing instruments and placing better equipment (Dovlo, 2005). Furthermore in this study, the students were asked for their reasons to consider moving abroad, if given that option. Most students (49%) responded

that they would consider moving abroad for career opportunities or for continuing with postgraduate training, whereas 48% would consider moving abroad for obtaining higher incomes. These results conform to those documented by Clark (2013) and Knevel et al. (2015), in their studies among Nepalese students. The results also support perceptions of many students in developing countries that there is a lack of quality education in most of their domestic institutions (Knevel et al., 2015); hence they prefer enrolling for postgraduate programs in Western countries. As for those who reported that they would consider moving abroad for obtaining higher incomes, certainly they were thinking of achieving greener pastures, although students' migration of such kind connotes creation of a brain drain scenario. As regards non-dental careers, most students (52%) in the current study thought it was necessary for Dentists to pursue such jobs. Besides, many (46%) thought that a career outside Dentistry would also be successful for them. Dental students in this study were probably thinking widely, by expressing their interest to pursue other careers on top of Dentistry, taking into account their entrepreneurship knowledge (Rashid, Ghotane, Abufanas, & Gallagher, 2013).

Concerning areas that the present students wanted to base their career, majority of them (72%) favored Clinical sciences. Predominantly, the students (68.1%) preferred Clinical specialties over general Dentistry. In contrast, most dental students in a study of Dhima et al. (2012), perceived general Dentistry as an area with the best future in terms of its impact on patients satisfaction. Moreover, "Oral and Maxillofacial Surgery" and "Orthodontics and Dentofacial Orthopaedics" were the two most chosen Clinical specialties in this study. Several studies worldwide showed that those two clinical disciplines are liked by many students (Cordes et al., 2001; Stewart et al., 2005; Gallagher et al., 2008; Aggarwal et al., 2012; Dhima et al., 2012; Rashid et al., 2013; Sam et al., 2016), since they are both considered as fields with the best future in terms of income (Stewart, Drummond, Carson, & Hoad Reddick, 2005; Maidment, 2011). This information is crucial for development of demand driven courses in Universities; it has principally enlightened the current researchers on the need to develop Orthodontics and Dentofacial Orthopaedics postgraduate course, which is not yet established at MUHAS.

In bivariate analysis, the relationship between the students' career development plans and socio-demographics were assessed. Regarding sex, significantly ($p < 0.05$) more female students than males intended to practice in urban areas. This finding corroborate well with that obtained by Knevel et al. (2015). The finding also supports speculations documented by McKay and Quiñonez (2012) that men and women tend to have different career motives. Furthermore, it is understood that men are generally more risk takers than females, so they are likely to work anywhere.

As regards age-groups, a significant number of older students (26-46 years) ($p < 0.05$) in the current study, preferred Clinical sciences than younger students (19-25 years). Factors such as inadequate exposure of younger students to clinical rotations, could explain this finding (Dhima et al., 2012).

5. Strength and Limitations

The sample included 100 Dental students who were randomly selected from a list of all students who were present at the School of Dentistry during data collection period. So the sample had a good representation of all Dental students at that time. The data collecting instrument was a structured self-administered questionnaire and the response rate was 100%. This response rate was excellent, indicating that a good coverage was achieved. Another strong point is that, it is possible that the information was steadfast, since it was obtained from a group of learned individuals in a University setting. However, to get a broader picture of the views of many Dentists in Tanzania, it would have been better to include a sample of Dentists who were trained previously at the Dental School in MUHAS. Thus, future studies on Tanzanian Dental students' career development plan should include participants like those included in a study of Ashri et al. (2007). Nevertheless, the current study shed light on the views of Dental students in Tanzania, about their career development plans.

6. Conclusion

This study revealed different perspectives of MUHAS Dental students on their career development plans. Most of them reported to frequently think of their career plans and majority of the students reported to prefer urban areas as their future work places. Also, they reported to favor practicing clinical sciences after they graduate. Sex and age were the socio-demographic factors related to students' career development plans.

It is thus recommended that:

- Further studies on career development plans of Dental students should be done, since the plans may often change over time. Such studies will give researchers more insight on ways to upsurge students' interest in different areas of Dentistry, and hence improve patients' oral health care in future.
- Universities need to ascertain professional counseling sessions and mentorship programs so that most students will be able to make informed decisions on their future career. Ultimately, the understanding of Dental students' career development plans will facilitate planning of human resource for oral health and ensure their availability in many areas of Tanzania.

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