Objective: To assess the drivers behind choice of dental career, student expectations regarding dental career, estimate the prevalence of burnout during the early stages of career and studentship among currently studying and newly graduated general dental practitioners of Kerala using simple questionnaires. Methods: A Cross sectional study was conducted with the study sample being derived from a group of students from the third year, final year, interns and a few clinicians who have completed their course no lesser than 2 years prior. This study exempts the first year and second year group of students. The data for this study was collected using questionnaire schedules using a descriptive survey design with 713 students, over the time period of 45 days at various colleges in and around Kothamangalam, Kerala. The questionnaire was designed such that it includes 18 questions regarding the influences for choice, attitude and expectations regarding one’s career. Results: Among the 713 students, interns and practitioners surveyed 32% individuals opted for dentistry out of their own personal interests while 40%, chose dentistry due to inability to procure a medical seat. A majority of the participants (75%, n=534) have shown to have future plans regarding their careers of which 331 (62%) would like to pursue postgraduation or overseas education programs; pursuing endodontics 109 (33%), orthodontics 76 (23%), pedodontics 56 (17%) being the more popular choices. The remainder of those not intending to pursue a postgraduation (n=112, 21%) would opt for a general practice. Around 371 (52%) mention change in expectations over the years regarding their career choice and potential outcomes. Following completion of three years under the undergraduate programme a significant n=285 (40%) opted ‘yes’ for a career change at this point while the remainder (n=428, 60%) chose to stay on the same track. Their reasons for opting for a change include ‘interest in another subject’ (n=199, 28%), ‘Lack of income generated’ (n=36, 5%), and other reasons (n=93, 13%). Over 50% did not attempt the question, implying that they were not able to decide their choice yet. Conclusion: This study revealed a rather positive attitude of students towards future career planning and choice with the majority of the group wanting to pursue higher education or working/learning under a clinical setup. The minority of who have decided to opt out was mainly due to lack of interest & funds.

Keywords: Career choice, dental career, post-graduation, income, career change.

INTRODUCTION

Career choice is a complex decision for students since it determines the kind of profession that they intend to pursue in life [1]. As students try to make career choices while in secondary school or be it following a Bachelor’s degree programme, they face the problem of matching their career choices with their abilities and school performance [1, 2].

Today, one has not only to make do career planning but also exhaustive career research before making a career choice so as to adjust with the evolving socio-economic conditions [2, 3].

Most students who are in secondary schools do not have accurate information about opportunities and profession development to help them make appropriate choices [4]. Adding to these, is the factor of increasing unemployment among Indian dental graduates [3, 4].

The ever-increasing number of young dental professionals and the lack of job opportunities, career changes and increasing unemployment has led to the
The objective of this study was to examine factors influencing career choice among dental students in the various colleges in and around Kothamangalam, Kerala [5].

The purpose of this study was to examine the long-term goals and perceived influences on dental students' professional careers [6].

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The purpose of this study was to examine factors influencing career choice among dental students in the various colleges in and around Kothamangalam, Kerala [5].

MATERIALS AND METHODS USED

Study design, population, and duration:
Study was conducted over a period of 45 days from the 2nd of April 2016 to 17th May 2016 at 4 different dental institutes in and around Kothamangalam, Kerala. The total number of individuals part-taking the survey being 713 students and interns.

Official Permission and Ethical Clearance
The ethical approval for undertaking the study was obtained from the Institutional review board of St. Gregorios dental college.

Informed Consent
Written consent letter was obtained from each subject prior to undertaking survey questionnaire.

Inclusion Criteria
- Subjects who were present the days survey being conducted and who were willing at the same for undertaking the survey were included.
- Individuals being selected for the study belonged to a group of students from third year, final year and interns.

Exclusion Criteria
- Those individuals not willing for the survey
- Study was conducted in such a way that it exempted the first year and second year group of students from the study.

Performa Details
A Cross-sectional study conducted with individuals being selected for the study belongs to a group of students from third year, final year and interns.

Solely on the presumption that the third year, final-year undergraduate students and interns have acquired a more realistic impression of the profession (clinical exposure) than potential entrants, it was of interest to investigate possible differences in the perceptions of dentistry between the different groups.

Thus, the study conducted by exempting the first year and second year group of students from the study.

The study was conducted using a descriptive survey design with 713 students from the third year through the final year BDS and interns of 4 different institutes, over the time period of 45 days at Kothamangalam and Muvatupuzha, Ernakulam District.

The questionnaire was designed such that it included 18 odd questions regarding the expectations, attitude and influences regarding one’s career.

Collection of Data and Tabulation
Distribution of study = 100%
Where n = 713

Table 1: Distribution of subjects according their reason for choosing the profession

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Family/peers N(%)</th>
<th>Personal interest N(%)</th>
<th>Money N(%)</th>
<th>Inability to procure medical seat N(%)</th>
<th>Service mentality N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for choosing dentistry</td>
<td>185 (26%)</td>
<td>228 (32%)</td>
<td>0 (0%)</td>
<td>285 (40%)</td>
<td>15 (2%)</td>
</tr>
</tbody>
</table>

Table 2: Distribution of subjects according whether they belong to the a merit or management student category

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Merit N(%)</th>
<th>Management N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merit student/ Management</td>
<td>335 (47%)</td>
<td>378 (53%)</td>
</tr>
</tbody>
</table>

Table 3: Distribution of subjects according whether they applied for an educational loan

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Yes N(%)</th>
<th>No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational loan for UG course</td>
<td>185 (26%)</td>
<td>528 (74%)</td>
</tr>
<tr>
<td>Parameters</td>
<td>Parents/family N(%)</td>
<td>Part time job N(%)</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Procurement of fund</td>
<td>620 (87%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

*22 (3%) not mentioned their methods of funding

Table 5: Distribution of subjects according to their definite plans of career/future after BDS

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Yes N(%)</th>
<th>No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans regarding career after BDS</td>
<td>534 (75%)</td>
<td>179 (25%)</td>
</tr>
</tbody>
</table>

Out of the 75% (n = 534) who have career plans

Table 6: Distribution of subjects according to their choice of career/future plans after BDS

<table>
<thead>
<tr>
<th>Parameters</th>
<th>PG N(%)</th>
<th>General practice N(%)</th>
<th>Complete career change N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career plans</td>
<td>331 (62%)</td>
<td>112 (21%)</td>
<td>91 (17%)</td>
</tr>
</tbody>
</table>

Out of the 62% individuals n=331

Table 7: Distribution of subjects according to their choice a specialty after BDS

<table>
<thead>
<tr>
<th>Specialty choice</th>
<th>Endo N(%)</th>
<th>Ortho N(%)</th>
<th>Pedo N(%)</th>
<th>Omfs N(%)</th>
<th>Other N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>109 (33%)</td>
<td>76 (23%)</td>
<td>56 (17%)</td>
<td>17 (5%)</td>
<td>73 (22%)</td>
</tr>
</tbody>
</table>

Out of the 62% individuals n=442

Table 7: Distribution of subjects according to their reason for choosing specialty

<table>
<thead>
<tr>
<th>Reason for choosing so.</th>
<th>Able to perform better N(%)</th>
<th>Personal interest N(%)</th>
<th>Money N(%)</th>
<th>Family/peers N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99 (30%)</td>
<td>86 (26%)</td>
<td>133 (40%)</td>
<td>14 (4%)</td>
</tr>
</tbody>
</table>

Table 8: Distribution of subjects according to whether they would opt for general practice alone

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Yes N(%)</th>
<th>No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General practice alone</td>
<td>26%</td>
<td>74%</td>
</tr>
</tbody>
</table>

Table 9: Distribution of subjects according to whether or not they would opt for general practice alone

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Yes N(%)</th>
<th>No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any change in expectations</td>
<td>342 (48%)</td>
<td>371 (52%)</td>
</tr>
</tbody>
</table>

Table 10: Distribution of subjects according to where they would opt to practice dentistry

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Kerala N(%)</th>
<th>Within India N(%)</th>
<th>Middle east N(%)</th>
<th>West N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place opt for Practice</td>
<td>370 (52%)</td>
<td>143 (20%)</td>
<td>64 (9%)</td>
<td>93 (13%)</td>
</tr>
</tbody>
</table>

*43 (6%) would opt for other places

Table 11: Distribution of subjects according to reasons why subjects chose to work in a particular country/place

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Money N(%)</th>
<th>Facilities N(%)</th>
<th>Comfort N(%)</th>
<th>Family N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for choice</td>
<td>100 (14%)</td>
<td>107 (15%)</td>
<td>192 (27%)</td>
<td>229 (32%)</td>
</tr>
<tr>
<td>Other reason in N(%)</td>
<td>85 (12%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12: Distribution of subjects according to whether this career is profitable or not

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Yes N(%)</th>
<th>No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expect to make profit</td>
<td>506 (71%)</td>
<td>207 (29%)</td>
</tr>
</tbody>
</table>

Table 13: Distribution of subjects according to their working preference

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Under an institution N(%)</th>
<th>Private N(%)</th>
<th>Partnership N(%)</th>
<th>Govt. service N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working preference</td>
<td>163 (23%)</td>
<td>199 (28%)</td>
<td>87 (12%)</td>
<td>264 (37%)</td>
</tr>
</tbody>
</table>
Table-14: Distribution of subjects who desire and don’t desire a career change

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Yes N(%)</th>
<th>No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career change</td>
<td>285 (40%)</td>
<td>428 (60%)</td>
</tr>
</tbody>
</table>

Table-15: Distribution of subjects according to the reason for opting out

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Lack of income</th>
<th>Dislike for profession</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for career change</td>
<td>36 (3%)</td>
<td>199 (28%)</td>
<td>93 (13%)</td>
</tr>
<tr>
<td>*Not attempted</td>
<td>385 (54%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*refer table 14 - 428(60%) said no implying, 385(54%) belong to the 428(60%)

When n=428 and 385 not attempted, remaining 43 individuals are sure of their choice of career.

Table 16: Distribution of subjects according to whether or not practice is feasible in their area

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Yes N(%)</th>
<th>No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility of practice</td>
<td>242 (34%)</td>
<td>471 (66%)</td>
</tr>
</tbody>
</table>

DISCUSSION AND REPORT

Among the total number of 713 students being subjected to the questionnaires 185 (26%) chose dentistry as a career option due to family/peer pressure, 228 (32%) out of their own personal interests, 285 (40%) due to inability to procure a medical seat either financially or on a merit basis and 15 (2%) out of the service mentally and almost none with an outlook for making money (Table-1).

In a similar study conducted by Meera et al., in Tamil Nadu regarding their career perspectives majority opted for the dental career due to family/peer pressure or due to the inability to procure a medical seat [7].

The subjects being surveyed consisted of 335 (47%) merit students and 378 (53%) management students who procured their funds from varied sources: Of which 185 (26%) took an educational loan for their completion of study.

Other means of obtaining finance included students being dependent on parents/family for funding 620 (87%), 71 (10%) on the basis of other funding and 22 (3%) who’ve not mentioned their varied financial sources.

Most students, a majority of 75% have shown to have certain future plans regarding their career and remaining 25% being indefinite about their future plans.

This being in contrast to a study conducted among final year Malaysian dental students which indicated that over 89% of respondents had definite plans regarding their future [8].

Out of the 75% (n = 535) who have career plans

Among the 534 (75%) students who have definite plans, 331 (62%) would like to pursue post-graduation or any sort of overseas education programme and 112 (21%) would opt for general practice (refer Table-5).

Similarly, in the previously mentioned study conducted by Meera et al., approximately 59% (where n= 265) of the respondents indicated that they planned to enter practice immediately; 28% planned to pursue specialty training after graduation [7].

On comparing with a study conducted in Malaysia by Che Musa et al., among dental undergraduate students; Career expectations and influences among dental student in Malaysia, there appears to be a higher level of interest in pursuing further studies and specialization amongst our subjects [9].

When they only seem to have 59% (n=356) of subjects wanting to specialize we seem to have a figure of 331 (62%) (n=534) wanting to specialize [9].
Our study subjects on the other hand, the remainder 91 (17%) would like a complete career change. This is being notable as there is no reference to such a choice among the Malaysian students [8, 11].

A study from the “Milieu in Dental Schools and Practice” by Naidu et al reveals that there is however a correlation between dental students wanting to opt out and seek other lines of work [10, 11].

Amongst the 331 (62%) that would like to pursue post-graduation or overseas education, 109 (33%) would choose endodontics, 76 (23%) for the department of orthodontics, 56 (17%) candidacy for pedodontics, 17 (5%) for oral maxilla facial surgery and 73 (22%) of individuals for other departments.

Further specialization where n= 331(62%)

Similar and comparable results are seen in a study; “Dental Students Perceptions and Factors influencing specialty and career choices”. Where in the study was used to evaluate dental students perceptions of dental specialities and identifying the factors that governed the decision making [12].

Most of the people who are considering doing post-graduation chose that particular specialty because of money 132 (40%) and the intuition that their capabilities would be best put to use in that particular department, this being 99 (30%) [13].

Other reasons for their choice such as out of genuine interest for the subject being 86 (26%) and finally 14 (4%) of the candidates due to pressure from peer groups and family members.

On comparing with other studies, it is notable that there are also other multiple guiding factors associated with choosing a particular specialty. These include; prior dental school experience/predoctoral training and faculty influence. These factors were not evaluated during this study [13].

But almost all studies reveal that certain specialities do tend to be more in demand such as orthodontics and oral maxilla facial surgery being at the more popular front. The results are comparable to a number of studies published in the journal of dental education [12-14].

It was notable that certain individuals chose to be satisfied with setting up a general practice of their own, this accounts for 185 (26%) of the total number of individuals who have a definitive career option.

A review article “Job satisfaction among general practitioners” mentions the clear cut phenomenon of burn out due excessive supply of medical practitioners and limited demand for the same [15].
Mentioning the added factors of little recognition, need for time to establish one’s self, lack of appreciation etc [15].

Despite all of this a notable 185 (26%) have opted to settle for general practice. The probable reasons include; stress being associated with highest for job dissatisfaction. Other parameters appear to be rather irrelevant with such groups of individuals.

Another major factor appears to be the funding for tuition and future career options - a do with what you have approach could be another possible reason [16].

**Change in Expectations over the Years**

When enquired whether individuals had any change in expectations over the years regarding their careers, when asked 371 (52%) said that their expectations had changed.

Wanting to continue in the same line of career is highly associated with the like factor where in subjects are comfortable with their environment and patients [9].

A study from the “Milieu in Dental Schools and Practice” by Naidu et al reveals that there is however a correlation between dental students wanting to opt out and seek other lines of work [10].

These reasons discussed mainly include wanting to quit due to failures, fear of failures, fear of competition, various stresses, burnout and financial overbearing [10, 11].

From our study most students have shown a trend to stay within their localities in Kerala, a majority of 370 (52%).

Some wanted to pursue a career elsewhere: 143 (20%) individuals anywhere else in India other than Kerala, 64 (9%) in the Middle East, 93 (13%) in the west and 43 (6%) opt for other places.

There are local jobs for dental undergraduates and postgraduates to practice in the city but the quality of opportunities in terms of salary is not good. This may be attributed to accounting for 39% wanting to go abroad to work.

The added factors of a handsome pay, better quality of life etc. is attracts our young individuals [17].

It can be deduced that majority Reason family interests; 229 (32%) and Working comfort; 192 (27%) for deciding to practice in preferable places. Other minor reasons include the availability of better facilities being 107 (15%) of subjects and 100 (14 %) for the money, A minority of 85 (12%) for other reasons.

When asked about their expectations in making a profit out of this line of career 506 (71%) said yes and 207 (29%) said no (refer: Table-12).

Among the people who wish to practice dentistry preferences for working under an institution includes 163 (23%) and for a private setup practice 199 (28%) of individuals said yes.
A minor group of 87 (12%) individuals would prefer the liaison of a Partnership. But a staggering 264 (37%) would rather go into the Government sector.

The reasoning for their particular choices includes a small 8% prefer being safeguarded under an institution and an even smaller 5% have no particular reason for such a choice.

However, most people state social security and income as their reasons. It appears to be the money for 20% individuals and social security for 23% individuals.

Some find it too expensive to establish a private setup and this accounts for a 17% of individuals and remainder 27% state other reasons for their decision.

Following completion of three years under the undergraduate programme a significant 40% opted yes for a career change at this point and 60% for no.

Their reasons for opting for a change (n=285) include the Lack of income generated by 14 (5%), a significant 80 (28%) because of their interest in another subject and 37(13%) mention other reasons. People who’ve not attempted being 154 (54%) implying that 54% where n = 285 not being able to decide and still contemplating their choice.

From the numbers, 242 (34%) individuals have a general opinion that their practice setup in their locality would not be feasible nor will it flourish given the number of practice setups in their areas but 471 (66%) however strongly believe that their setup would be successful.

**Limitations of the Study**

As far as to our knowledge this is the first survey of its kind in Kerala which makes its comparison difficult.

The prior dental school experience or predoctoral training and faculty influence were not evaluated during the study.

**CONCLUSIONS**

Student career choices are influenced by numerous factors including outcome expectancies, individual variants such as gender, personal interests, learning experiences, environmental factors etc.

Outcome expectancies were the most influential factors. Family members and peers have also shown influence in individuals.

Today in general, Dental graduates cannot or are not able to practice independently because they cannot afford the infrastructure and work as assistants under seniors with paltry salary and foreign shores are not easy either. Long term career plans of new graduates commonly embrace opportunities for professional development as well as personal issues such as work/life balance and financial income.

By this study we have redeemed our knowledge through the survey on ‘Career expectations and influences among dental students’ & is our honor to present this work to you all.
ACKNOWLEDGEMENT

We sincerely thank the Department of Public Health Dentistry, the Principal and all the students who part took in the survey.

REFERENCES


