# Barriers to apply promotive and the preventive health care among Primary Health Care physicians in Al Ahsa district of Saudi Arabia

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***Abstract:*** *Comprehensive primary care is a concept bringing together inputs, delivery, management and organization of services related to diagnosis, treatment, care, rehabilitation, preventive and health promotion. Promotive and preventive components play very crucial role in this concept.*

***Objectives:*** *To evaluate the barriers to practice promotive and preventive* ***components of the comprehensive*** *cares among primary health care (PHC) physicians in Saudi Arabia, Al-Ahsa.*

***Methods:*** *A cross-sectional survey was conducted of 140 randomly selected PHC physicians (125/140=89.3% response rate) from total of 208 physicians working in 64 PHC centers scattered all over Al-Ahsa, Kingdom of Saudi Arabia between December 2015 to January 2016. A validated pr-tested self-administered questionnaire asking physicians to rate barriers they faced to practice promotive and preventive components of comprehensive primary care was used. SPSS version 21 was used to analyze data.*

***Results:*** *The mean age of participating physicians was 39.02 ± 9.47 years. Crowded clinic is the top rated barrier for promotive and preventive care (88% and 79.2%; respectively). The risk of female physician for having poor attitude score towards practicing comprehensive primary care was 3.16 times higher than that of male physician ($p < 0.010$). The risk of having institute promotive care barriers in those who did not do post graduate training is 3 times more than in those did 4 years or more post graduate training ($p = 0.048$). The risk of having institute preventive care barriers in younger age group is 5 times more than in that in older age group ($p < 0.007$).*

***Conclusion:*** *Several factors can affect practicing promotive and preventive component of comprehensive primary care. The influence of these factors on practicing comprehensive primary care indicates a need of development of an approach to reduce the dominance of these factors on practice.*

***Key words:*** *Comprehensive primary health care, Prenetive care, Pronmotive care , Primary health care physicians.*

## 1. INTRODUCTION:

Primary health care system plays a crucial role in providing the comprehensive health care to the population. Promotive and preventive care is the essential components of comprehensive health care. The world Health Organization (WHO) defines comprehensive health care as a concept bringing together inputs, delivery, management and organization of services related to diagnosis, treatment, care, rehabilitation and health promotion. Integration is a means to improve services in relation to access, quality, user satisfaction and efficiency [1].

Health promotion should focus on the changes to an individuals' health by modifying individual's behaviors. The WHO definition of health promotion is "the process of enabling people to increase control over and to improve their health'' [2]. **Prevention is a major component of effective primary care practice. Practicing preventive health care by primary prevention through various** prevention programs and interventions focus on building caring and supportive relationships, known as "protective factors are needed to be implemented by practicing primary health care physicians[3].

In recent years, these two components of the comprehensive health care was able to decrease preventable hospitalization by 40%, Emergency Room (ER) visit by 29% and hospital re-admission by 36% [4,5].The WHO blueprint for Primary Health Care (PHC) recognizes that only a comprehensive primary health care approach with effective preventive and promotive approaches will actually improve the quality of life and health outcomes of people in any society [6]. Primary Health Care Physicians (PHCPs) play key role in providing comprehensive care at the Primary Health Care Centers. However, various factors can inhibit or promote the implementation of

comprehensive care [1]. So in order to improve the preventive and promotive health care, it is necessary to explore obstacles that limit its practice among PHCPs. The earliest study dated back 1977 has found the work related organization services as the main barrier to practice preventive care [7].

Lack of motivation, discontinuity of care and lack of adequate remuneration were perceived as the strongest barriers to prevention care implementation in other study [8]. Cultural stigmata also play a role in delivering proper comprehensive health care either doctor or patient related (9-11).

The lack of patient accessibility, lack of resources, lack of GPs awareness and motivation are the most common reported barriers to practice comprehensive care in general in a study where the researcher compared GP practice of promotive care in Europe and Spain [12]. The most recent research in this topic has showed that the health system fragmented care; GPs awareness and attitude toward implementation of preventive care and lack of training were the most common barriers to apply preventive care [13]. In the Arabian Gulf region, *Awad, M. et al has* found lack of patient educational materials as the important barrier to offering smoking prevention counseling, followed by lack of community resources and lack of time [14]. In one Saudi study, lack of time and lack of patient interest were found to be the most rated barrier in the preventive care at the primary health care center [15].

This study was an attempt to evaluate the barrier factors (awareness, attitude, institute related factors and physicians' related factors) towards applying preventive and promotive health care at the Primary Health Care Centers. The result of which will help us in increasing the quality of health services provided to patients, increase financial benefits for both on country level and individual level.

To the best knowledge of the researchers, this study was the first study on finding out the barriers in implementing the preventive and promotive components of the comprehensive health care at the primary health care centers of Saudi Arabia

## 2. MATERIAL AND METHODS:

This was a Cross-sectional descriptive study. Official approval to conduct the study was taken from the research committee, Department of Family and Community Medicine in Dammam University. A total number of 208 physicians, working in PHC centers in Al-Ahsa MOH sector, were identified. These physicians were the study population. The sample was drawn from this list of doctors. At the 95% confidence level with acceptable error of 6%; and by using web-base sample size calculator, the estimated calculated sample size was 116 (that is about 55.8% of the study population) and to increase the response rate, 20% extra were collected to the estimated sample size (i.e. 24 extra physicians) that were used in case of non-responders. Thus, the final calculated sample size was 140.This study was conducted during the period from December 2015 to January 2016. Informed consent was taken from all participants in the study.The subjects were approached by either trained data collectors or the investigator himself using a self-administered questionnaire in order to achieve such assessment. 140 physicians were randomly selected.

Data were collected using self –administered questionnaires. The questionnaires were designed by the investigators to achieve the study objectives. The questionnaires contained closed and opened questions. Some questions were on 5 likert scale response system. A pilot study was done on five General physicians before the study which were later excluded from the study. The data was entered in SPSS 21 version.

**The questionnaire was divided into 5 main sections.**

**Section A:** covered the socio-demographic data including age, gender, marital status, nationality, years since graduation, qualification, place of qualification, any residency or fellowship training done, and participant specialty.

**Section B:** covered barriers related to doctors' awareness and attitude; this includes several questions to test participant attitude towards practicing primary comprehensive care with positive and negative phrases.

**Section C:** covered institutional factors affecting practicing **promotive and preventive components of the** comprehensive primary care including giving motivational support for practicing comprehensive primary care, getting training, presence of clear guidelines, presence of well-organized home health care visits program, patient number encounters, referral system, and appointment system.

**Section D:** covered specific promotive and preventive care barriers that the participant feels that keep him away of practicing promotive and preventive care like lack of time, crowded clinic, lack of essential resources, lack of training program, lack of motivation, lack of information resources, lack of interest, lack of confidence in counseling, and difficulty during counseling.

In section B frequency analysis with percentage was done to the first item "Is this the first time you heard about promotive and preventive component of comprehensive primary care?" to know how many physicians are aware about this concept.□ ¯To assess physicians' attitude towards practicing preventive and promotive components

of comprehensive primary care, summation of total score from question 2 to question 15 was done for each participant into new variable. The median was calculated for the new summated variable; and it was (60).Frequency analysis was done for the new summated variable to see what the lowest result is; and it was (42). Those whom total score 42 – 59.9 were considered as having poor attitude and those with total score of 60 and more were considered as having good attitude.In the likert scale , those who answered by "strongly agree and agree" were considered as a positive feedback (***Agree***) and those who answered by "neutral, disagree and strongly disagree" were considered as a negative feedback (***Disagree***). Physicians related barrier frequency analysis was done for the new summated variables to see what the maximum results are; and it was (30) for promotive care, (20) for preventive care. Those whom total score 19 – 30 were considered as having physicians' related barrier to promotive care. Those whom total score was lesser than 19 were considered as having no physicians' related barrier to promotive care. Those whom total score 13 – 20 were considered as having physicians' related barrier to preventive care. Those whom total score lesser than 13 were considered as having no physicians' related barrier to preventive care. Likewise for institute related barrier the total scores were 16-20 and 12-15 for preventive and promotive care respectively. Those whom total score lesser than 16 were considered as having no institute related barrier to preventive care. Those whom total score lesser than 12 were considered as having no institute related barrier to promotive care.

## 3. RESULTS:

A total of 140 physicians were distributed the questionnaires, and 125 physicians returned the questionnaires after proper answering. Six physicians did not return the questionnaires while eight physicians refused, and one was travelling abroad during our study time, giving a response rate of 89.3%.The mean age of participating physicians was 39.02 ± 9.47 years (Min= 26 yrs. Max= 61yrs). The number of male physicians was more than seventy three percent (N=92).The non-Saudi doctors comprised almost sixty two percent (N=77) of the total participants. The majority of the respondents were married (95.2%) The mean duration of clinical practice was 12.62 ± 9.528 years (range, 1 – 37 years). 53.6% of the physicians were in practice since ≥ 10 years, 67.2% of physicians were general practitioners. 63.2% of participants did not have any post-graduate training program. An average of 69.3 ± 23.1 patients was seen by each primary care clinic every day (range, 15 – 120 patients seen per clinic) (table1).

Most of the physicians (n = 98, 78.4%) were aware about primary preventive and promotive health care. However, only 51.2% have good attitude score towards practicing primary preventive and promotive health care. There was no statistical difference between physicians' age groups, nationalities, marital statuses, medical school countries, highest medical degrees, country of highest degrees and specialties and having a good attitude score (Table 2). Males had significantly good attitude score over female (58.7% and 30.3%; respectively, $p < 0.005$).Physicians with practice experience of ≥ 10 years had a good attitude score than those of less years of experience (59.7% and 41.4%; respectively, $p < 0.041$).Post graduate physician of training for ≥ 4 years had a good attitude score (80%, 38.5% and 48.1%; respectively, $p < 0.013$) than those of without training or training of less than 4 years. The risk of female physician for having poor attitude score was 3.16 times higher than that of male physician ($p < 0.010$; 95% CI = 1.321– 7.576) (table 2).

As shown in bar chart in Figure 1, the highest rated promotive care barrier to the participants was crowded clinic (n= 110, 88%) followed by lack of time (n= 92, 73.6%).There was no significant statistical difference between physicians' gender, marital statuses, highest medical degrees and specialties and having a positive score for presence of promotive care barriers related to physicians' factors. There were significantly more physicians in the younger age group (26 – 35 years) than other age groups (36 – 45 and 46 – 61 years), who had a positive score for presence of promotive care barriers related to physicians' factors (81.5%, 44.2% and 39.3%; respectively, $p < 0.0001$) (table 3).Regarding nationality there were significantly more Saudi physicians than non-Saudi physicians, who had a positive score for presence of promotive care barriers related to physicians' factors (85.4% and 42.9%; respectively, $p < 0.0001$). On the other hand, there were significantly more physicians who studied medical school locally than those who studied abroad, who had a positive score for presence of promotive care barriers related to physicians' factors (85.7% and 45.8%; respectively, $p < 0.0001$).Physicians who were in practice for < 10 years than those who were in practice for ≥ 10 years, had a positive score for presence of promotive care barriers related to physicians' factors (74.1% and 46.3%; respectively, $p < 0.002$). Physicians who had their highest medical degree locally than those who had it abroad, had significantly more positive score for presence of promotive care barriers related to physicians' factors (86% and 45.1%; respectively, $p < 0.0001$) (table 3).

There were significant more physicians in the younger age group (26 – 35 years) than other age groups, who had a positive score for presence of promotive care barriers related to institute factors (65.1% Vs. 53.6% , $p = 0.044$). Likewise Saudi physicians had significantly more positive score for presence of promotive care barriers (79.2% vs. 62.3%; $p = 0.048$). On the other hand, physicians who studied medical school locally had significantly more positive score for presence of promotive care barriers (81% Vs 62.7%, $p = 0.037$). The physicians who had their highest medical degree locally had a significantly more positive score for presence of promotive care barriers related to institute factors (81.4% Vs. 62.2%, $p = 0.028$) .The details of other factors are shown in table 3.

The highest rated preventive care barrier to the participants was crowded clinic (n= 99, 79.2%) followed by lack of preventive care training program (n= 86, 68.8%) (Figure2). There was no statistical difference between physicians' gender, marital status, highest medical degrees, years of post-graduate training and specialties and having a positive score for presence of preventive care barriers related to physicians' factors (table 4).The younger age group physicians (26 – 35 years) had significantly more than positive score for presence of preventive care barriers related to physicians' factors (79.6%, 51.2% Vs. 46.4%, $p < 0.002$). Saudi physicians had significantly more positive score for presence of preventive care barriers related to physicians' factors (75% vs. 54.5% $p = 0.022$) than non-Saudi physicians. The details of other factors are shown in Table 4. There was no statistical difference between physicians' gender, marital statuses, years of practice, highest medical degrees, years of post-graduate training and specialties and having a positive score for presence of preventive care barriers related to institute factors (table 6). There were significantly more physicians in the younger age group (26 – 35 years) than other age groups (36 – 45 and 46 – 61 years), who had a positive score for presence of preventive care barriers related to institute factors (68.5% and 46.5% Vs. 25%, $p < 0.001$). Saudi physicians had a significantly more positive score for presence of preventive care barriers related to institute factors (66.7% Vs. 41.6%,$p < 0.006$).The same was true with locally educated physicians who had significantly more positive score for presence of preventive care barriers related to institute factors (69% vs. 42.2%, $p < 0.005$).The details of the other barriers factors is shown in table 4.

## 4. DISCUSSION:

Most of the participant physicians (78.4%) were aware about promotive and preventive components of comprehensive primary care. This could be due to availability of CME lectures about comprehensive primary care (46.4% of participants did attend CME about comprehensive primary care) and ability of participants of entering and using relevant internet database (68%).

More than fifty one percent of the participants in our study had good attitude score towards practicing preventive and promotive components of comprehensive primary care. This could be due to lack of awareness in some physicians (21.6%) and lack of comprehensive primary care training programs (84%). Also, this could be because some physicians find practicing comprehensive primary care demands more time, [16,17] or because of lack of enthusiasm from patients.[18] It is clear that physicians have to choose between many competing demands on their time during consultations. The beliefs and values that influence primary care physicians' judgments about whether practicing comprehensive primary care is an effective use of this time warrants further researches.

It was found that, the risk of female physician for having poor attitude score was 3.16 times higher than that of male physician ($p < 0.010$; 95% CI = 1.321 – 7.576). However, the confidence interval (CI) was wide (i.e. less precise); this could be due to lower number of female physicians in our sample. Another explanation for this finding is that, female physicians experience discrimination in academic field, had individual constrains such as family preferences, less institutional support [19], social and family pressure, and traditional bias in favor of males [20]. In our study, the average patients' number seen by each primary care clinic every day was 69.3 ± 23.1 patients. This exceeded the highest average number of patients seen in Ta'eif according to MOH statistical year book in 2011 [21], where the average patient number was 61.5 per day for each PHC clinic. More than one million people are living in Al-Ahsa[22], and according to our finding, there are 208 physicians working all over PHC centers in Al-Ahsa; which makes about 4800 people to take care of for each one PHC physician. This is still far away from optimal ratio according to WHO recommendation (1000 people for each PHC physician) [23]. However, the ratio depends on the number of medical colleges, infrastructure, and government planning [24, 25].

Crowded clinics can lead to increase in waiting time of the patient in the waiting area, and decrease in time the patient seen during the consultation which leads to patient and physician un-satisfaction [26,27] ..For promotive care, it was found those crowded clinics (88%), and lacks of time (73.6%) are the highest rated barriers that keep participants away from practicing promotive care. For preventive care, it was found those crowded clinic (79.2%), and lack of preventive care training program (68.8%) are the highest rated barriers that keep participants away from practicing preventive care.

All these factors of crowded clinic, lack of time, and lack of training are considered common barriers for PHC physicians in other national studies [15, 28, and 29]. Al-Doghether et al [15] found the most rated preventive care barrier by PHC physicians in Riyadh was lack of patient interest (76.2%) followed by lack of time (61%).

It was found that the risk of having institute promotive care barriers in those who did not do post graduate training is 3 times more than in those did 4 years or more post graduate training ($p = 0.048$; 95% CI = 1.010 – 8.963). This is could be due to the fact those who did not do post-graduate training, do not have career-based development gains. Gaining a further qualification of post-graduate training subsequently increases the physician's value as he or she acquired new skills and knowledge [30, 31,32] ..

## 5. CONCLUSION:

Majority of physicians are aware about promotive and preventive component of comprehensive primary care; although half of them have poor attitude towards practicing these components of comprehensive primary care especially female physicians. Lack of time and crowded clinic are ones of the major institute barriers to practice all dimensions of comprehensive primary care. There is a need to train physicians about how to practice comprehensive primary care efficiently in order to increase patient satisfaction.

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**Table 1:** Social and Professional data of the physicians

| Demographic characteristics | Number N=125 | % |
|---|---|---|
| Age | 39.02 ± 9.47 years (Min= 26 yrs, Max= 61yrs) | |
| 26-35 years | 54 | 43.2 |
| 36-45 years | 43 | 34.4 |
| 46-61 years | 28 | 22.4 |
| Gender | | |
| Male | 92 | 73.6 |
| Female | 33 | 28.4 |
| Nationality | | |
| Saudi | 48 | 38.4 |
| Non Saudi | 77 | 61.6 |
| Marital status | | |
| Un married | 6 | 4.8 |
| Married | 119 | 95.2 |
| Medical school country | | |
| Local | 42 | 33.6 |
| Abroad | 83 | 66.4 |
| Years of practice | | |
| <10 years | 58 | 46.4 |
| >10 years | 67 | 53.6 |
| Highest medical degree | | |
| MBBS | 87 | 69.6 |
| Diploma | 25 | 20.0 |
| Board | 3 | 2.4 |
| Master | 10 | 8.0 |
| Country of Highest medical degree | 43 | 34.4 |
| Local | 82 | 65.6 |
| Years of post graduate training | | |
| Not done | 79 | 63.2 |
| <4 years | 26 | 20.8 |

| | | |
|---|---|---|
| >4 years | 20 | 16.0 |
| Specialty | | |
| GP | 84 | 67.2 |
| Family physician | 20 | 16.0 |
| Pediatrician | 9 | 7.2 |
| Obstetrics and gynecology | 3 | 2.4 |
| Other | 9 | 7.2 |

Table 2: Physicians social and professional data versus attitude score

| Characteristics | Total n=125 | Good score Number (%) | P value |
|---|---|---|---|
| Age group | | | |
| 26-35 years | 54 | 25 (46.3) | |
| 36-45 years | 43 | 23(53.5) | NS |
| 46-60 years | 28 | 16 (57.1) | |
| Gender | | | 0.005 |
| Male | 92 | 54(58.7) | |
| Female | 33 | 10 (30.3) | |
| Nationality | | | NS |
| Saudi | 48 | 25 (52.1) | |
| Non saudi | 77 | 39 (50.6) | |
| Marital status | | | NS |
| Unmarried | 6 | 3 (50) | |
| Married | 119 | 61 (51.3) | |
| Medical school | | | |
| Local | 42 | 22(52.4) | NS |
| Abroad | 83 | 42(50.6) | |
| Years of practice | | | 0.041 |
| <10 years | 58 | 24 (41.4) | |
| >10 years | 67 | 40 (59.7) | |
| Highest Medical degree | | | NS |
| MBBS | 87 | 42 (48.3) | |
| Diploma | 25 | 12 (48.0) | |
| Board | 3 | 3 (100) | |
| Master | 10 | 7 (70.0) | |
| Country of highest degree | | | |
| Local | 43 | 23(53.5) | .NS |
| Abroad | 82 | 41950) | |
| Years of postgraduate training | | | 0.013 |
| Not done | 79 | 38 (48.1) | |
| <4 years | 26 | 10 (38.5) | |
| .>4 yeras | 20 | 16 (80.0) | |
| Speciality | | | |
| GP | 84 | 38 (45.2) | NS |
| Family physician | 20 | 14 (70.0) | |
| Paediatrician | 9 | 6 (66.7) | |
| Obs/gynae | 3 | 2 (66.7) | |
| Other | 9 | 4 (44.4) | |

* Chi-squared test.

Table 3: Physicians social and professional verses score of presence of promotive care barriers related to physicians's factors

| Characteristics | Total n=125 | Presence of barrier score number (%) | P value |
|---|---|---|---|
| Age group<br>26-35 years<br>36-45 years<br>46-60 years | <br>54<br>43<br>28 | <br>44 (81.5)<br>19 (44.2)<br>11 (39.3) | <br><br>0.0001 |
| Gender<br>Male<br>Female | <br>92<br>33 | <br>59(64.1)<br>15(45.5) | <br>NS |
| Nationality<br>Saudi<br>Non saudi | <br>48<br>77 | <br>41(85.4)<br>33(42.9) | 0.0001 |
| Marital status<br>Unmarried<br>Married | <br>6<br>119 | <br>5(83.3)<br>69(58) | |
| Medical school<br>Local<br>Abroad | <br>42<br>83 | <br>36(85.7)<br>38(45.8) | <br>0.0001 |
| Years of practice<br><10 years<br>>10 years | <br>58<br>67 | <br>43(74.1)<br>31(46.3) | 0.0001 |
| Highest Medical degree<br>MBBS<br>Diploma<br>Board<br>Master | <br>87<br>25<br>3<br>10 | <br>56(64.4)<br>11(44)<br>2(66.7)<br>5(50) | <br>NS |
| Country of highest degree<br>Local<br>Abroad | <br>43<br>82 | <br>37(86)<br>37(45.1) | <br>.0001 |
| Years of postgraduate training<br>Not done<br><4 years<br>.>4 yeras | <br>79<br>26<br>20 | <br>55(69.6)<br>10(38.5)<br>9945) | <br>.0007 |
| Speciality<br>GP<br>Family physician<br>Paediatrician<br>Obs/gynae<br>Other | <br>84<br>20<br>9<br>3<br>9 | <br>52(61.9)<br>14(70)<br>4(44.4)<br>0(0)<br>4(44.4) | NS |

* Chi-squared Test.

Table 4: Physicians social and professional verses score of presence of promotive care barriers related to institute factors.

| Characteristics | Total n=125 | Presence of barrier score number (%) | P value |
|---|---|---|---|
| Age group<br>26-35 years<br>36-45 years<br>46-60 years | <br>54<br>43<br>28 | <br>43 (79.6)<br>28 (65.1)<br>15 (53.6) | <br><br>0.044 |
| Gender<br>Male<br>Female | <br>92<br>33 | <br>66 (71.7)<br>20 (60.6) | <br>NS |

| | | | |
|---|---|---|---|
| Nationality<br>Saudi<br>Non saudi | <br>48<br>77 | <br>38 (79.2)<br>48 (62.3) | <br>0.048 |
| Marital status<br>Unmarried<br>Married | <br>6<br>119 | <br>6 (100)<br>80 967.2) | <br>NS |
| Medical school<br>Local<br>Abroad | <br>42<br>83 | <br>34 (81.0)<br>52 962.7) | <br>0.037 |
| Years of practice<br><10 years<br>>10 years | <br>58<br>67 | <br>44 (75.9)<br>42 (62.7) | <br>NS |
| Highest Medical degree<br>MBBS<br>Diploma<br>Board<br>Master | <br>87<br>25<br>3<br>10 | <br>63 (72.4)<br>14 (56.0)<br>3 (100)<br>6 (60) | <br>NS |
| Country of highest degree<br>Local<br>Abroad | <br>43<br>82 | <br>35 (81.4)<br>51 (62.2) | <br>0.028 |
| Years of postgraduate training<br>Not done<br><4 years<br>.>4 yeras | <br>79<br>26<br>20 | <br>62 (78.5)<br>14 (53.8)<br>10 (50) | <br>0.009 |
| Speciality<br>GP<br>Family physician<br>Paediatrician<br>Obs/gynae<br>Other | <br>84<br>20<br>9<br>3<br>9 | <br>62 (73.8)<br>14 (70)<br>4 (44.4)<br>1(33.3)<br>5 (55.6) | <br>NS |

Table 5: Physicians social and professional verses score of presence of preventive care barriers related to physicians's factors

| Characteristics | Total n=125 | Presence of barrier score number (%) | P value |
|---|---|---|---|
| Age group<br>26-35 years<br>36-45 years<br>46-60 years | <br>54<br>43<br>28 | <br>43(79.6)<br>22(51.2)<br>13 (46.4) | <br>0.002 |
| Gender<br>Male<br>Female | <br>92<br>33 | <br>58 (63.0)<br>20 (60.6) | <br>NS |
| Nationality<br>Saudi<br>Non saudi | <br>48<br>77 | <br>36(75)<br>42(54.5) | 0.022 |
| Marital status<br>Unmarried<br>Married | <br>6<br>119 | <br>5 (83.3)<br>73 (61.3) | <br>NS |
| Medical school<br>Local<br>Abroad | <br>42<br>83 | <br>32(76.2)<br>46 (55.4) | <br>0.024 |
| Years of practice<br><10 years<br>>10 years | <br>58<br>67 | <br>45 (77.6)<br>33 (49.3) | <br>0.001 |

| | | | |
|---|---|---|---|
| Highest Medical degree<br>MBBS<br>Diploma<br>Board<br>Master | <br>87<br>25<br>3<br>10 | <br>60 (69)<br>13 (52)<br>2 (66.7)<br>3 (30) | NS |
| Country of highest degree<br>Local<br>Abroad | <br>43<br>82 | <br>33 (76.7)<br>45 (54.9) | 0.017 |
| Years of postgraduate training<br>Not done<br><4 years<br>.>4 yeras | <br>79<br>26<br>20 | <br>55 (69.6)<br>14 (53.8)<br>9 (45) | .NS |
| Speciality<br>GP<br>Family physician<br>Paediatrician<br>Obs/gynae<br>Other | <br>84<br>20<br>9<br>3<br>9 | <br>56 (66.7)<br>13 (65)<br>4 (44.4)<br>0 (0)<br>5 (55.6) | NS |

* Chi-squared Test

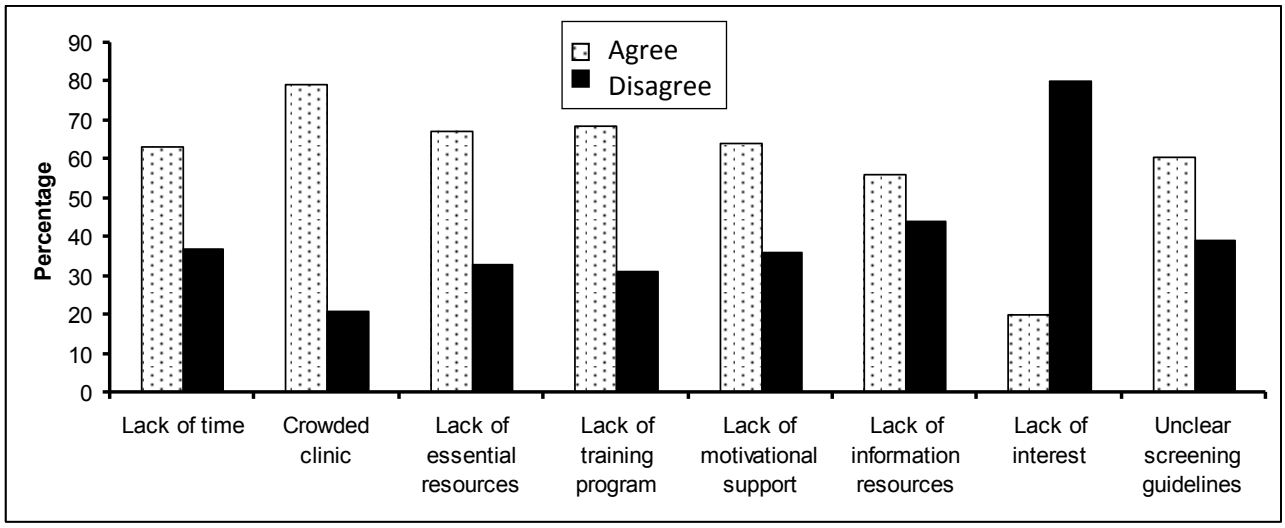
Table 6 : Physicians social and professional data versus score of presence of preventive care barriers related to institute factors

| Characteristics | Total n=125 | Presence of barrier score number (%) | P value |
|---|---|---|---|
| Age group<br>26-35 years<br>36-45 years<br>46-60 years | <br>54<br>43<br>28 | <br>37 (68.5)<br>20 (46.5)<br>7 (25) | <br><br>0.001 |
| Gender<br>Male<br>Female | <br>92<br>33 | <br>49 (53.3)<br>15 (45.5) | <br>NS |
| Nationality<br>Saudi<br>Non saudi | <br>48<br>77 | <br>32 (66.7)<br>32 (41.6) | 0.006 |
| Marital status<br>Unmarried<br>Married | <br>6<br>119 | <br>5 (83.3)<br>59 (49.6) | <br>NS |
| Medical school<br>Local<br>Abroad | <br>42<br>83 | <br>29 (69)<br>53 (42..2) | <br>0.005 |
| Years of practice<br><10 years<br>>10 years | <br>58<br>67 | <br>35 (60.3)<br>29(43.3) | <br>NS |
| Highest Medical degree<br>MBBS<br>Diploma<br>Board<br>Master | <br>87<br>25<br>3<br>10 | <br>47 (54)<br>11 (44)<br>3 (100)<br>3 930) | <br>NS |
| Country of highest degree<br>Local<br>Abroad | <br>43<br>82 | <br>29 (67.4)<br>35 (42.7) | <br>0.009 |
| Years of postgraduate training<br>Not done | <br>79 | <br>44 (55.7) | <br>.NS |

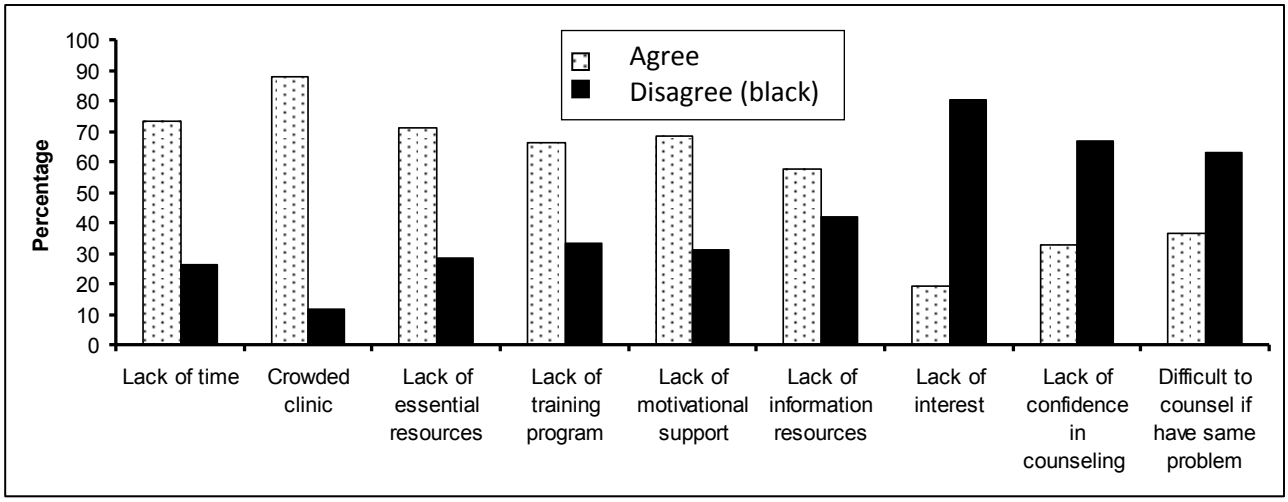
| | | | |
|---|---|---|---|
| <4 years<br>.>4 yeras | 26<br>20 | 12 (46.2)<br>8 (40) | |
| Speciality<br>GP<br>Family physician<br>Paediatrician<br>Obs/gynae<br>Other | <br>84<br>20<br>9<br>3<br>9 | <br>43 (51.2)<br>14 (70)<br>4 (44.4)<br>0 (0)<br>3 (33.3) | NS |

* Chi-squared Test

Figure 1 Showing evaluation of physicians barriers to promotive and preventive care




*Evaluation of physicians' barriers to preventive care.*




*Evaluation of physicians' barriers to promotive care.*