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RESEARCH ARTICLE

THE IMAGE OF PSYCHIATRY AMONG MEDICAL STUDENTS : CLINIC STUDY

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Abstract

The stigmatization of psychiatric disorders affects the general public but also health professionals, especially doctors and medical students, their attitudes appear more negative towards psychiatric pathologies. At the joint end, it is clear that medical students' interest in psychiatry as a career choice is low; while improving recruitment in psychiatry is more than ever a public health priority. This work is a "before/after" longitudinal study whose target population consists of 5th year medical students starting a psychiatry internship. The data collection was done through an anonymous self-survey with a scale psychometric: ATP-30 this compendium was made on the first and last day of the internship. Out of 90 students contacted we collected 82 actionable questionnaires. The psychiatry internship resulted in an increase in the average ATP-30 score from 111.62 ± 9.99 to 116.30 ± 9.88 , confirming that this internship significantly improves the attitudes of the students in our sample towards psychiatry. Similarly, the frequency of choice of psychiatry is higher at the end of the internship or (41.4%) that at the beginning of the latter (26.8%), an increase in the number of the group wishing to do psychiatry by 14.6% at the end of the internship.

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Introduction:-

The process of stigmatization is defined by Goffman as linked to "an undesirable attribute that deeply discredits" and "reduces the bearer of the attribute, person in his own right, to a contaminated, a left-behind" in the eyes of society. Indeed, the labeled attributes are equated with a set of undesirable characteristics called stereotypes (for example, assimilation of psychiatric pathology to dangerousness, unpredictability) (1).

Psychiatric pathologies are particularly vulnerable to stigma with many consequences in terms of impairment of self-esteem, loss of hope, suicidal risk, social dysfunction, poor adherence to care.

The stigma of psychiatric disorders also affects health professionals, including doctors and medical students. Attitudes of medical students appear to be more negative towards psychiatric pathologies (schizophrenia, depression, substance use disorders) than towards others (AIDS, diabete) (2).

Objectives:-

To assess the impact of the psychiatric hospital internship on medical students' attitudes towards this specialty and their career preference in relation to it:

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1. Learn about the representations of psychiatry among medical students, as well as their career preference before any practical academic contact with this specialty.
2. Look for factors associated with students' attitudes towards psychiatry, as well as their intention to choose this specialty in the future.

Methods:-

Study Type:

This is a longitudinal study that took place in the Ibn Nafis psychiatric hospital, a structure affiliated with the Mohamed VI University Hospital Center in the city of Marrakech-Morocco. It began in November 2018 and ended in February 2019.

The population studied was students in the 5th year of medicine at the Faculty of Medicine and Pharmacy in Marrakech. During this period of study year, students receive, in groups of 45, a mandatory psychiatry internship over an eight-week period. The survey involved two successive groups of externals in the 5th year, for a total of 90 students.

Data collection:

The data was collected using an anonymous self-question . This questionnaire consists of three sections:

A_ socio-demographic section that includes information on gender, marital status, socioeconomic status and parental education.

B_ Une section on academic education and career choices:

1. Master's course in psychiatry
2. Internship in Psychiatry.
3. Seminar or conference on psychiatry.
4. Sources of information on psychiatry.
5. Satisfaction with medicine as a profession.
6. Reasons for choosing medicine as a career.
7. A question about the intention to choose psychiatry as a career with various proposals specifying the reasons for the choice.

C_ Une attitude based on the French-language translation of the ATP-30 scale (Attitudes Toward Psychiatry 30) designed by Burra et al. This is a 30-item Likert scale that assesses students' attitudes in eight dimensions:

- The mentally ill.
- Mental illness.
- Psychiatrists.
- Psychiatric science.
- The choice of a career in psychiatry.
- Psychiatric treatments.
- Psychiatric institutions.
- Teaching in psychiatry.

Conduct of the investigation :

The 5th year of the Faculty of Medicine and Pharmacy in Marrakech benefit from a mandatory part-time internship lasting eight weeks in psychiatry. The training includes two sides, theoretical and practical. The theoretical courses cover semiology, major psychiatric pathologies, pharmacological therapeutics as well as conduct to be held in the face of psychiatric emergencies are made in the form of role-plays prepared and presented by students.

The practical component includes patient presentations, with an interviewpsychiatric supervision followed by clinical discussion, as well as outpatient assistance, emergency rooming and inpatient follow-up.

Our recruitment period spanned 4 months, i.e. two consecutive internship periods (November 2018 to February 2019). On the first day of the internship, the study was presented by one of the authors to the students. They were then invited to answer the self-question voluntarily, after consent and with a guarantee of anonymity. At the end of the internship , students were again invited to answer the same questionnaire. In order to match the data between the

beginning and the end of the survey, each student was assigned a number should be noted on both questionnaires in order to ensure the start/end of the internship.

Statistical analysis:

The questionnaire data was entered on Microsoft Excel for Mac 2011 under digital coding and analyzed by IBM® SPSS® Statistics 22 software.

Descriptive statistics were used to explore the characteristics of our sample (averages and frequencies).

To explore the associations of the quantitative dependent variable "ATP-30 score" with the qualitative variables of the "sociodemographic" and "academic training" sections of the questionnaire, we conducted an analysis of variance (ANOVA test). The associations of the qualitative variable "psychiatry choice as a future specialty" were explored with the Chi2 tests of Pearson and Fisher accurate.

In order to assess the impact of the internship on students' attitudes towards psychiatry, we compared the PRE-internship ATP-30 score with the end-of-internship score using the Student test for matched samples. The impact of the internship on the dichotomous variable "choice of psychiatry as a future specialty" was analyzed through the McNemar test.

Results:-

Of the 90 students contacted, 8 questionnaires were eliminated because they were partially completed, or because their authors were absent on the first and/or last day of the internship. In total, we selected 82 actionable questionnaires, or 91% of the population studied.

Descriptive Results:

Socio-demographic characteristics:

The average age of our sample was 22.28±0.87 years. Males were at 33%, while females were female 67%, the sex ratio H/F was 0.49, and 100% of students were single. Regarding the socio-economic level, 40.2% reported a low level, 47.5% an average level and 12.3% a high level of family financial income.

The level of education of the parents of the students in the survey was predominantly academic (78%) and only 2.43% reported that parents were illiterate.

Finally, it should be noted that 6 students (or 7.3% of the total staff) report a personal history of psychiatric consultation.

Characteristics of academic training:

The majority of students (87.9%) reports that he has already attended a master class in psychiatry. Indeed, the psychiatry module is taught during the first semester of the 5th year of medicine and this proportion is explained by the fact that recruitment took place throughout the end of the first semester and the beginning of the second semester of the academic year.

On the other hand, 57.3% of the study's workforce report that they have never participated in conferences or seminars on the topic of psychiatry outside the compulsory pedagogical program

The students in the survey use a variety of sources of information about psychiatry.

Courses are the most cited source of information (89%) media follow-up (47%) and books (20%). Most students report that they rely on multiple sources of information (52%).

Career choice characteristics:

Satisfaction of Medicine as a Career:

It is interesting to note that 20.7% of students express dissatisfaction with medicine as a career.

On the other hand, it seems that the vocation and influence of the entourage are the most determining factors in the choice of medicine as a career in our sample. In fact, they are reported by 48% and 45% of the students in the survey respectively.

This is followed by the media and financial motivations (28% and 17%) respectively. A history of psychiatric or somatic conditions is cited by a small proportion of students (3% and 11%).

Intention to choose psychiatry before the internship:

At the beginning of the internship, 26.8% of students expressed interest in psychiatry as a future specialty. The main motivations for this choice were scientific and professional ambitions (cited by 50% of students), the management of personal psychological suffering (45.5%) and to a lesser extent the image of the psychiatrist in the media (31,8%).

On the other hand, the stressful nature of psychiatric pathologies is the discouraging factor most reported by students (94.1%), followed by other unstable reasons (50%) and lack of encouragement from those around them (41.1%). Nearly one-third of the sample said they were discouraged from choosing psychiatry because of the presumed dangerousness of patients psychiatric wards (32.3%).

Finally, the lack of financial incentives remains the least disincantable factor reported by the survey students (2.94%).

Attitude Score for Psychiatry:

The AVERAGE ATP-30 score was 111.62 ± 9.99 before the course with a minimum of 93 a maximum of 134 and a median of 112. This reflects an overall positive attitude average is above the theoretical threshold of 90. The score increased to 116.30 ± 9.88 at the end of the course, with a minimum of 92 a maximum of 137 and a median of 117.

Impact of the internship on the intention to choose psychiatry as a future specialty:

In our sample of 82 students, the frequency of choice of psychiatry is higher at the end of the internship (41.4%) that at the beginning of the latter (or 26.8%), i.e. an increase in the number of the group wishing to do psychiatry by 14.6% at the end of the internship.

Between the beginning and end of the internship, 18 students (22%) have not changed their opinion in favour of the choice of psychiatry, while 4 (4.87%) have switched to an unfavourable opinion.

Conversely, 44 students (or 53.6%) have retained their opinion not to choose psychiatry as a specialty, compared to 16 (19.5%) who have moved on to a favourable opinion. McNemar's test concludes that psychiatric internship has a positive effect. Indeed, the latter has led to an increase in the percentage of students who consider psychiatry as a future specialty of 14.6%. This increase is significant at the 5% level, the degree of significance being $p = 0.0001$.

Discussion:-

Factors associated with student attitudes and the choice of psychiatry before the internship:

Factors influencing students' attitudes:

The overall attitude of the students in our sample was favourable. Indeed, the average score on the ATP-30 scale was 111.62 ± 9.99 . That's 21 points higher than the score of 90 representing neutral attitude. This result is higher than that found in the EL MEZGUELDI study (5) which can be explained by the fact that the majority of participants have already had theoretical instruction. Certainly it is consistent with most of the literature (6)(7)(8)(9) (10) (11) (12) (13).

However, some studies find a rather negative attitude towards psychiatry (14) (15). The use of different measures, as the last two surveys did not use ATP-30 may justify these differences.

In our population, the assessment of attitudes before practical teaching highlights a perception of psychiatry as a less scientific discipline than other medical specialties, and the majority of students distinguish psychiatrists from "real doctors". Several studies also observing this "unserurcial" perception suggest that this representation contributes to the stigmatization of the psychiatric specialty by students (16). These data underline the importance of university

teaching of psychiatry: for example, teaching the basics of neuroscience, including data in genetics, imaging, biomarkers, would help to promote the scientific nature of the discipline.

Our linear regression model did not objectivize predictive factors significantly associated with a more favorable attitude towards psychiatry, which is not the case in the work of EL MEZGUELDI (5) where female sex, history of attendance at psychiatry conferences and satisfaction with medicine as a career are significantly associated factors.

On the other hand, the association of the history of attendance at psychiatry conferences with a positive attitude towards psychiatry, also noted by Kuhnig et al. (8), seems logical but does not allow to retain a causal link in one way or the other.

Other factors, namely the socioeconomic level and educational attainment of parents, were not associated with a more favourable attitude towards psychiatry. These results are consistent with some data from the literature (15, 17). However, and unlike our study, the personal or family history of psychiatric pathologies or follow-up was reported as predictive of a positive attitude in the Ansari et al. surveys (17). Hailesilassie et al (18) as well as the multicenter European study of Warnke et al (13). The latter author noted that previous experience with psychiatry, in the form of a course, internship, or conference, and to a lesser extent in the form of a personal or family psychiatric history, was positively correlated with a more favourable attitude towards psychiatry. In addition, some authors point to the predictive role of previous clinical experience (in the form of internships) in attitudes towards psychiatry. Indeed, while Mortlock et al (19) sees a positive impact of the internship on attitude towards psychiatry, Hailesilassie et al (18) notes a negative effect of the internship and a more unfavourable attitude among students who have benefited from it.

Possible explanations for this variable impact of the internship on students' attitudes towards psychiatry include differences between mental health services, in terms of pedagogical approaches and human conditions, and above all differences methodological methods.

Choosing a career in psychiatry:

Our survey revealed that 26.8% of students intended to choose psychiatry as a future specialty prior to the internship. This proportion, which remains highly variable in the literature, with the lowest rate being around 1.6%(23) while the highest is 49% (24). This discrepancy can be explained by methodological variations in relation to the academic level of the students in the sample. Indeed, cohort surveys (15) or those that included students from different years of study (17) (20) (24), found that the rate of students who said they were interested in psychiatry decreased throughout the medical journey. The second factor that may explain this wide variation is related to the process of gathering information. Some authors have pointed out the students who have actually chosen the psychiatric study (25) instead of merely raising their intentions of choice. Always for close conditions and the same methodology our result is identical to that obtained by EL MEZGUELDI (5) 26.8%.

In addition, our logistic regression model isolated a factor significantly associated with the intent to choose psychiatry. This factor is represented by the ATP-30 score with $p = 0.04$. In addition, and like our study, most of the work highlights the strong association between students' positive attitudes towards psychiatry and interest in the latter as a specialty in the future (5)(6)(8) (17) (26).

The impact of gender on the choice of psychiatry remains controversial in the literature. Most authors did not find a significant association (20) (27) (28) (26). While Cat et al (15) find that the female sex predicts the choice of psychiatry.

On the other hand, socio-economic status has not been associated with the choice of psychiatry in most studies. Our model showed that students with a middle socioeconomic level were more likely to choose psychiatry. This may be partly due to lower liberal installation costs, compared to the with other specialties. Conversely, Aslam et al. (26) noted that this choice was rather associated with the high socioeconomic level.

Finally, when the survey was done remotely from a psychiatry internship, it did not show significantly to be associated with the desire to do psychiatry (28) (29). Moreover, some non-significant factors in our model have been significantly associated with the choice of psychiatry in the literature. This includes a history of interactions with a person with a mental illness (29).

Power of statistical models obtained:

Overall, the statistical models obtained revealed predictors for the two main study-dependent variables, namely students' attitudes towards psychiatry and the intention of choosing psychiatry as a future specialty.

However, the two models thus obtained account for only a small proportion of the variance of the two dependent variables. These results imply that further studies are needed, including other more specific predictors, which could count for a large proportion of variance in these statistical models. For example, details of theoretical and practical training in psychiatry as well as an appreciation of the student's quality, the nature of the teacher-student relationship, the dimensions of the student's personality or the attitudes of the close entourage (13).

The impact of the internship on student attitudes and the choice of psychiatry:**A Impact of the internship on attitudes towards psychiatry:**

Our study clearly demonstrated a statistically significant improvement in students' attitudes towards psychiatry at the end of their internship. This finding is consistent with most studies found in the literature despite methodological differences and the use of instruments to measure different attitudes (30) (31) (32) (33) (34).

Most international longitudinal studies using the ATP-30 scale aim for an average increase in the ATP-30 score at the end of the internship ranging from 2.05 to 8.9.

In two of these studies this improvement was not significant while only one noted a statistically significant decrease in attitude score at the end of the internship (35) (36) (37). These variations can be explained by differences in the duration and quality of supervision provided to students during psychiatry internships.

Impact of the internship on the preference of a career in psychiatry:

Studies deemed relevant the majority showed an increase in the proportion of students preferring a career in psychiatry at the end of the internship. Many of these used the ATP-30 scale to measure students' attitudes. These results are in line with ours, as we have noted a c 14.6% increase in the number of students choosing psychiatry from 26.8% at the beginning of the internship to 41.4% at the end of the internship (McNemar's test; 0.0001).

This increase is due to the fact that the proportion of students who have moved from a favourable opinion in the choice of psychiatry to an unfavourable opinion is lower than that of students who have gone from an unfavorable opinion towards this choice to a more favourable opinion (7.4%vs 22.4%).

Conclusion:-

Medical students, as future physicians, are a major target of policy to destigmatize psychiatric pathology. It appears from the literature and the results of our study that the immediate positive impact of interventions and training on medical students' attitudes towards mental pathology is certain. However, the beneficial effect of interventions appears to fade over time. It is therefore essential that initial medical training incorporates regular destigmatization activities with students, in the form of theoretical instruction, interventions or internships throughout the internship.

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