Psychological Determinants of Patients with Hypertension at the Institute of Cardiology of Abidjan

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Abstract
Introduction
The African empirical beliefs on the chronic and incurable disease, hypertension, which link it to the curse engender many changes in lifestyle. They might be associated with psychological suffering that may affect the observance of the treatment and the prognosis of this disease. The objective of the study was to identify the psychological factors of hypertension patients followed at the Institute of Cardiology of Abidjan.

Methods
That cross-sectional study was conducted between September 2015 and July 2016 at the Institute of Cardiology of Abidjan, Côte d’Ivoire. It included 400 hypertensive outpatients who were treated over a period of at least 3 months and agreed to be participant regardless of the gender. The data collection began by a 1-week pre-survey that helped to readjust investigative tools. Some data were collected from the medical record of patients. Bio-socio-demographic, clinical, and psychosocial factors were studied. The data were analyzed using Epi Info version 3.5.4 - 2012. Tables and figures were made in Excel and in World from Microsoft 10.

Results
Female predominance (58%) was reported with a sex ratio of 0.72. The average age of patients was 58.8 years. 95.5% of the study population were Ivorian. Regarding to the belief, 100% of the patients kept their faith in God despite the discovery and the burden of high blood pressure.

38.8% (n=155) of patients were in high school, 24% (n = 96) were in higher education, and 14.4% (n = 58) were in primary school. Uneducated patients were 22.8% (n = 91). The retirees (32.2%; n = 129) were predominant followed by unemployed patients (23%; n = 92), liberal occupation (15.3%; n = 61), public workers (12.8%; n = 51), and private sector workers (10.5%; = 42).

Most (74.5%; n = 298) of the study population were married or living in a common-law relationship. Widowers and divorced patients were 7.5% (n = 701) 49.8% (n=199) of subjects patients had 5 children and more.

96% of the patients had a monthly income higher than that of poverty threshold set up by WHO, and 61% (n=244) lived in high quality house. Patients did not have any medical coverage in 69.9% of cases.

Clinically, the majority of patients (56.2%) had a genetic predisposition to high blood pressure compared with 43.8% of individuals who were not. The family history of high blood pressure was in 78.7% (n = 177). The majority (53% n = 212) of our patients had cardiovascular risk factors, and 3% had at least 3 risk factors. The main risks factors were dyslipidemia (28.5%), stress (25.4%), and diabetes (19.7%). High blood pressure was found during a functional symptomatology or a complication within 80.3% (n = 321) of patients. The evolution of this disease was more than 5 years within 51.8% (n = 207) subjects.

The common complications of high blood pressure were heart failure (33.3%; n = 9) and dilated cardiomyopathy (29.6%; n = 8). The arthrosis (48.5%; n = 17) was the most frequent extra heart disease.

More than half of patients (56.2%) received monotherapy compared with 43.8% of hypertensive subjects who benefited from bitherapy or tritherapy. Patients took their medication once per day in 74.2% of cases.

Psychologically, patients perceived high blood pressure as a natural disease in 91.2% of cases compared to 8.8% who considered it as a mysterious illness.

When the diagnosis of high blood pressure was announced, 33.5% of patients kept their hope with use of medication, while 33% of subjects worried about their family support.

Hope for healing, impact of fear of this disease on the profession, and fear of the neighborhood gaze were 17.1%, 11.67%, and 4.68%, respectively.

The information need was the most common psychologic concerns expressed on high blood pressure in 80.9% of cases.

Conclusion: The study of the impact of high blood pressure on the patients’ psychology helped to understand its evolution at the ICA and to determine its related psychologic problems.
Keywords
Psychologic Determinants; High Blood Pressure; Institute of Cardiology; Abidjan

Introduction
Nowadays, the screening, the understanding, the treatment of high blood pressure (HBP) have evolved [1]. It is increasing in sub-Saharan Africa and is a major public health problem because of its frequency and its cardiovascular and renal complications. In humain being’s mind, any disease must be treated and healed. As a result, many practitioners manage chronic disease with diverse therapeutic approaches. The individual will develop an image or a representation that will help him to accept the reality of his disease [2]. In fact, The African empirical beliefs on the chronic and incurable disease, hypertension, which link it to the curse engender many changes in lifestyle. They are frequently associated with psychologic suffering that may affect the observance of the treatment and the prognosis of this disease [2]. The objective of the study was to determine the psychological factors of hypertension patients at the Institute of Cardiology of Abidjan.

Methods
Patients
The cross-sectional study was conducted between September 2015 and July 2016 at the Institute of Cardiology of Abidjan (ICA), Côte d’Ivoire. This study included 400 hypertensive outpatients who were treated over a period of at least 3 months and agreed to be participant regardless of the gender. The recruitment of this study population was randomly done during one month and a half period of investigation according to the availability of patients.

Collection and analysis of data
The data collection began by a 1-week pre-survey that helped to readjust investigative tools. Subjects were seen in the morning and in the afternoon consultations. After giving their informed consent, they were subjected to a face-to-face interview questionnaire. Some data were collected from the medical record of patients. The assessment of the psychological features was based on the psychological reactions of the patients to HBP announcement. Bio-socio-demographic, clinical, and psychosocial factors were studied.

They were consisted of age, sex, profession, evolution of religious belief, marital status, place of residence, monthly income, lifestyle, having or not medical coverage, cardiovascular risk factors, other associated-HBP diseases (diabetes, dyslipidemia, obesity, stress, sedentarity gastroduodenal ulcer, addiction...), circumstances and date of diagnostic of HBP, patient understanding of HBP, patient neighbourhood, and treatment.

The data were analyzed using Epi Info version 3.5.4 - 2012. Tables and figures were made in Excel and in World from Microsoft 2010.

Results
Bio-sociodemographic characteristics
The female predominance was 58% of cases with a sex ratio of 0.72. The average age of our patients was 58.8 years (extremes: 28-87 years). The peaks of frequency were 36-59 years and ≥ 60 years.

Among the patients of study, 95.5% were Ivorian. For the belief, 100% of the patients had kept their relationship with God despite the diagnostic of the HBP and its theranostic implications. At the education level, patients attended high school, higher education, and primary school were 38.8% (n=155), 24% (n=96), and 144% (n=58), respectively. The uneducated hypertensive patients were 22.8% (n=91).

The retirement (32.2%; n = 129) was predominant followed by unemployment (23%; n = 92), liberal occupation (15.3%; n = 61), public sector (12.8%; n = 51), and private sector (10.5%; = 42). 74.5% of patients (n = 298) were married or living in a common-law relationship , and widowers and divorced patients were 7.5% (n = 701). 49.8% (n=199) of subjects had 5 children and more. High blood pressure patients (96%) had a monthly income higher than that of poverty threshold set up by WHO, and 61% of them (n=244) lived in high quality house. Patients did not have any medical insurance in 69.9% of cases.
Clinical Characteristics

More than half of the study population (56.2%) presented a genetic predisposition to HBP compared to 43.8% of individuals who did not have it. The family history of HBP was in 78.7% (n = 177). 53% of patients (n = 212) had cardiovascular risk factors, and 3% of whom had at least 3 risk factors. The main risks factors were dyslipidemia (28.5%), stress (25.4%), and diabetes (19.7%). High blood pressure was diagnosed during a functional symptomatology or a complication within 80.3% (n = 321) of patients. The evolution of this disease was more than 5 years within 51.8% (n = 207) of subjects. The heart failure (33.3%; n = 9) and the dilated cardiomyopathy (29.6%; n = 8) were the most frequent complications of HBP. The arthrosis (48.5%; n = 17) was the most common extra heart disease.

56.2% of hypertensive patients received monotherapy compared to 43.8% of hypertensive subjects who benefited from bitherapy or tritherapy. Patients took their medication once per day in 74.2% of cases.

Psychologic determinants

-Patients’ perceptions of HBP

Patients (91.2%) perceived HBP as a natural disease while 8.8% of patients considered it as a mysterious illness.

-Patients’ experiences after disease announcement

33.5% of patients were hopeful and optimistic for the medical care of HBP after its notification whereas 33% of subjects were worried about their family support. The hope for complete healing, the effect of fear of this disease on the job, and fear of neighborhood gaze were expressed in 17.1%, 11.67%, and 4.68%, respectively (Table 1).

Table 1: Summary of the Patients’ Experiences of Living with HBP After the Diagnostic Announcement

<table>
<thead>
<tr>
<th>Experiences of living with HBP</th>
<th>Frequency</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope for therapeutic care</td>
<td>365</td>
<td>33.5</td>
</tr>
<tr>
<td>Hope for complete heal</td>
<td>186</td>
<td>17.1</td>
</tr>
<tr>
<td>Effect of fear of HBP on job</td>
<td>127</td>
<td>11.7</td>
</tr>
<tr>
<td>Fear of neighboring gaze</td>
<td>51</td>
<td>4.7</td>
</tr>
<tr>
<td>Worry about family support</td>
<td>359</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>1088</td>
<td>100</td>
</tr>
</tbody>
</table>

The need for information on the disease (80.9%) was the most common concern of our patients (Table 2).

Table 2: Distribution of Psychosocial Needs Expressed Following the Disease Announcement

<table>
<thead>
<tr>
<th>Psychologic needs</th>
<th>Frequency</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need of information</td>
<td>161</td>
<td>80.9</td>
</tr>
<tr>
<td>Need of support</td>
<td>16</td>
<td>08</td>
</tr>
<tr>
<td>Other need</td>
<td>22</td>
<td>11.1</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>100</td>
</tr>
</tbody>
</table>

Discussion

Age and Sex

The evolution of HBP with age varies according to sex. In our series, the prevalence of HBP among women was higher than that of men. We found 58% of hypertensive women compared to 42% of men. Our result is similar to that of Adoubi et al. [3] and Rabarijaona et al. [4], who found 57% and 61.5% of female predominance in Côte d’Ivoire and in Madagascar, respectively. However, our finding is different from some African studies, including Mali, where Bakary [5] reported 82.1% of male predominance [5]. The high proportion of women with HBP could be due to obesity, high-dose estrogen contraceptive, abuse of the anorectic and non steroidal anti-inflammatory drugs [6], menopause, other cardiovascular disease, social pressure [6-8].

The age remains a cardiovascular risk factor according to the literature data. The prevalence of HBP is correlated with the age in most of the studies [9]. In our series, the mean age was 58.8 years, and thus, suggesting that HBP occurred in adults.

Religious Belief

Our results showed that 100% of the patients believed in God despite the diagnostic of the HBP and its therapeutic and pronostic implications. Their attitude reveals that the religion plays a relevant role in their life. In fact, Huguelet [10] has shown that the religion provides valuable support to the suffering people since the creation of the world. In psychiatry, research has demonstrated that religion might contribute not only to relieve patients with severe psychoses, such as schizophrenia [10].

Socio-Professional Status

In this study, 62.8% of the patients had completed at least the high school, and the proportion of retirees (32.2%) was predominant. Our results corroborate with those
of N’guessan, who reported 31.4% of retirement [11]. This result could be explained by the increase of prevalence of HBP with the age [12].

Regarding to marital status, 74.5% of hypertensive patients were in couple, half of the study population (49.8%) had at least 5 children. Patients were not covered by any medical insurance in 69.8%. These remarkable observations suggest that the challenges in the clinical management of HBP and its possible psychopathological disorders.

Patients Perceptions of HBP

The announcement of HBP to the patients led to two reactions. Most of subjects (91.2%) believed it as a natural disease; however, a few patients (8.8%) considered it as a mysterious illness. Interestingly, Kone et al. [13] stated in the study done in Abidjan that an important event did not escape from a mystical origin or causality in the traditional African society. Moreover, the interpretation of the disease is inherent to the human thought. The disease could result not only from a physical, neurological, or biological malfunction but also from the way the human being understands it. Generally, humans need to elucidate what happens to them and to understand it [14].

Patient’s Experiences of Living with HBP

Following the announcement of HBP, subjects expressed their hope for the adequate and efficient treatment (33.5%), while others (33%) were concerned about their family support. In this study, 7.1% of patients expected to be completely healed whereas 11.7% of subjects feared of the impact of the HBP on their profession. In addition, the stigmatization had aroused fear within 4.7% of individuals. Objectively, Giordana et al. [15] have identified that stigmatization is a general attitude caused by the lack of knowledge of a situation which lead to discrimination. The awareness of patients did not evolved considerably on the anti-HBP care. As a result, the need for information on the disease (80.9%) was the major concern of our patients after the diagnosis and 65.7% of them regularly expressed their anxiety through the anti-HBP treatment (65.7%).

Conclusion

This study of the psychological impact of HBP on patients helps to appreciate the evolution of this chronic disease at the ICA and to determine its related psychological problems. The hypertensive patients express major concerns regarding their treatment, their profession, and their neighbourhood. All major concerns should be carefully considered for adequate and effective management of the HBP patients in the multidisciplinary setting between Cardiology and Psychology Departments.

References


