Dissatisfaction with the Health Service and Non-Adherence to Antihypertensive Medication Treatment in Brazil*

Mayckel da Silva Barreto1,2, Gabriela Schiavon Ganassin2, Laura Misue Matsuda2, Sonia Silva Marcon2
1Mandaguari College of Philosophy, Sciences and Literature, Department of Nursing, Mandaguari, Brazil
2Maringa State University, Department of Nursing, Maringa, Brazil
Email: mayckelbar@gmail.com

Received 15 December 2014; accepted 8 January 2015; published 19 January 2015

Abstract

Purpose: Possibly the dissatisfaction with health services influences the non-adherence to medication treatment process. However, such association needs further investigation to extrapolate its results to different groups, for instance, those using only public health services. The aim of the study was to investigate the association between dissatisfaction with the public health service and non-adherence to antihypertensive pharmacotherapy. Methods: Cross-sectional descriptive study. 392 patients with hypertension participated; these were undergoing outpatient treatment at Primary Health Care, in a city of Brazil. Data collection occurred between December 2011 and March 2012 through home visits with the application of semi-structured questionnaire. Results: The majority of the interviewed were satisfied with the care received. However, it was found that there was association between non-adherence to pharmacotherapy and dissatisfaction with the reception service, scheduling appointment, care received from the health team, solvability of health problems, group activities, and physician professional. Conclusion: When health professionals do not aim for a service of quality that promotes user’s satisfaction with the health service, it cannot reach good levels of adherence to therapy.

Keywords

Hypertension, Consumer Satisfaction, Medication Adherence, Primary Health Care

*Paper extracted from master’s thesis “Noncompliance Drug Treatment in Individuals with Arterial Hypertension in Maringá-Paraná” presented to Maringá State University, Maringá, PR, Brazil.

1. Introduction

The Systemic Arterial Hypertension (SAH) is considered one of the main risk factors for the development of renal complications, cardiac and cerebrovascular diseases, and currently is a serious worldwide and Brazilian public health problem by presenting high medical and socioeconomic costs, due to the high morbidity and mortality rates [1].

Before it becomes urgent to seek the disease control, but this bumps into difficulties of several kinds, among them, structural problems—limited access to appointments, examinations and medicines—and relational problems—conflicting relationship between health professionals and users [2]. This conflict over the provision of care certainly influences the satisfaction of individuals with the assistance provided by health services [3].

Lately, users have assessed the health services and this evaluation has occupied a prominent place among planning actions of the Government and Social Assistance in Brazil, because the (dis)satisfaction of customers is directly related to the quality of service offered by health establishments, both public and private [3].

The case of patients with hypertension has been reported that there is direct association between dissatisfaction with health services and non-adherence to medication treatment [4]. Nevertheless, such association needs further investigations that extend their results to different groups, for instance, those who use only public health services [5] [6].

Against this background, assessing the satisfaction of patients with SAH who perform treatment in primary health care is imperative, because it generates useful information for managers and health professionals from the critical sense of the patients and their evaluation of the quality of the health actions provided by care units. Moreover, knowledge regarding the occurrence and the factors that are associated with uncontrolled blood pressure enables healthcare professionals and users, together, plan more efficient and effective actions for treatment and monitoring the disease [3], in other words once highlighted the user’s dissatisfaction influence with the health service into non-adherence to pharmacotherapy, together health professional and user can develop strategies that modify first the critical points of care—in the customer perception—and later to seek treatment adherence and blood pressure control.

Therefore, considering the treatment adherence and monitoring of chronic diseases, depending on how the user notices the assistance received in Basic Health Units (UBS), it is questioned: Dissatisfaction with the assistance provided by primary health care to individuals with SAH influences on adherence to medication treatment process? And to answer that question, it was proposed that this study aimed to investigate the association between dissatisfaction with the public health service and non-adherence to antihypertensive pharmacotherapy.

2. Methods

2.1. Type of Study

Descriptive cross-sectional study conducted with 392 individuals with hypertension, undergoing outpatient treatment at Primary Health Care in a Brazilian city.

2.2. Study Site

The Primary Health Care, with focus on assisting individuals with hypertension, is within the Unified Health System (SUS) that is the name of the public health system in Brazil, considered one of the biggest of the world. With the advent of the SUS in 1990, the entire population in Brazil has gained the right to free universal health care, financially supported by funds from the budgets of the federal government, from the states and municipalities. In this kind of care the professionals who make up the team of family health care are directed to seek a performance that exceeds the biological and prescriptive aspects of the disease, boosting production changes in health care, from the perspective of consolidating actions that enforce the principles of SUS and ensure the whole and humanized care [7].

2.3. Sample

The host county of study possessed at the time of data collection 25 UBS and 65 Family Health Care teams. For the purposes of this research, it was used, for convenience, the area covered by 23 UBS located within the county limits. The sample size was calculated based on the total number of people with SAH registered in the
city (40,073). It was considered that 50% of individuals could present the characteristic of interest (non-adherence) \[8\]; error estimation of 5% and a confidence interval of 95%. It was added more 10% for possible losses, resulting in a sample of 422 individuals selected randomly and stratified way, with proportional distribution to the total number of people with SAH enrolled in each of urban UBS area.

As inclusion criteria in the study were considered: age higher than 18 years old and have started medication treatment for at least one year, since the abandon of antihypertensive medication treatment occurs more intensively in the first months after its onset, and 11% to 22% of cases occurs in the first year \[8\]. Thirty (7.10%) individuals were excluded because they refer not receiving any kind of assistance from public health services, which has resulted in a total of 392 respondents.

### 2.4. Data Collection

To collect the data, first, it was obtained from the Municipal Health Secretary a list, divided by UBS area, with their records of people with SAH, which each one of them received a numbering. Through electronic raffle were determined those that would be interviewed. In cases where the selected individual did not meet the inclusion criteria or refused to participate, automatically the next on the list was invited to participate in the study, repeating this operation up to three times.

After setting-up the addresses and telephone numbers of randomly selected individuals, which occurred at UBSs, it was proceed to the data collection itself, developed during December 2011 to March 2012, through interviews in the homes of the individuals, with the application of three semi-structured questionnaires. The first contained questions related to personal, socioeconomic and health monitoring profile.

The second was an instrument to assess user’s satisfaction with the health service, which was estimated from eight questions, two regarding the structure and access to the service, three to the care attendance, treatment and care of UBS’s professionals, two related to satisfaction with the treatment and the physician, and a general satisfaction. The score scale of responses is Likert type with four possible alternatives, one being the maximum satisfaction and four fully unsatisfied. After obtaining the mean scores, median divided the sample in groups of “more satisfied” and “less satisfied” as used in another study \[2\].

Finally, it was applied the Non-adherence to Medicines Team Questionnaire-Qualiaids (QAM-Q), developed to address the act (if the individual takes and how he or she takes his or her medicines), the process (how he or she takes medicine within seven days), and the result of adherence (in case if the Blood Pressure was controlled) \[9\]. The responses resulted in a composite measure being considered adherent ones only individuals who reported having taken properly 80% to 120% of the prescribed doses and whose blood pressure was normal at the last measurement (clinical outcome).

### 2.5. Data Analysis

The information was typed into Excel spreadsheet for Windows 2007® and later statistically analyzed using the Statistical Analysis System software—SAS®. To verify the association of study’s variables with the outcome of interest and the association measure, it was used the non-parametric test, Pearson chi-square test, with significance level of \( p < 0.05 \) and it was also calculated the odds ratio (OR).

### 2.6. Ethical Considerations

The study was conducted in accordance with the guidelines disciplined by Brazilian resolutions and the Declaration of Helsinki. The study project was approved by the Standing Committee on Ethics in Human Research of the State University of Maringá—Paraná—Brazil (CAAE: 0390.0.093.000-11).

### 3. Results

Based on the combined measure of QAM-Q, among the 392 interviewed individuals, 165 were considered non-adherent to medication treatment, representing a prevalence of 42.1% of non-adherent individuals. Whereas in a general assessment 167 (42.6) of the respondents were characterized as dissatisfied with the care received from the UBS.

In Table 1 the sociodemographic characteristics of the participants are presented. It was evident that among the dissatisfied the majority were female (92% - 23.5%); had aged 60 years or older (98% - 25.0%); were of
white ethnicity (105% - 26.8%); had a fixed partner (97% - 24.7%); had up to eight years of study (136% - 34.6%); and presented monthly per capita income of up to one thousand dollars (126% - 32.2%). However, it is important to note that these characteristics also prevailed in the overall study population.

When observing the level of user’s satisfaction with the public health service it is evident that most were satisfied with the health care service received, mainly with the physician professional (86.5%), the resolution of their health problems (83.4%), with the care they received from professionals of the family health care team (82.1%) and the group activities performed by professionals (80.1%).

But the care received at the front desk of UBS and scheduling appointments were less positive assessed by the users, although still with high satisfaction rates, 60.7% and 75.0% respectively (Table 2).

Despite evidences of user’s satisfaction with the health service, it can be seen that among the dissatisfied the non-adherence to medication treatment was more frequent. The calculation of the OR showed that individuals with SAH who were dissatisfied with the care received in primary public health care services had chance from 1.6 to 6.5 times more likely to not adhere to the proposed medication treatment.

4. Discussion

The findings of this study, in general, have shown an association between dissatisfaction with the care received in public services in primary health care and non-adherence to antihypertensive medication treatment.

Among the 392 individuals interviewed nearly 40% were dissatisfied with the desk attendant at UBS and 25% with the scheduling of medical appointments, and this was associated with non-adherence to medication treatment. Similarly, a case-control study carried out with 192 subjects with SAH showed that the reasons for non-adherence to treatment were related to difficulty in service access, scheduling appointments, reduced availability
Table 2. Distribution of satisfaction evaluation of hypertensive patients related to care received in the Basic Health Unit (UBS), Maringá, PR, 2012.

<table>
<thead>
<tr>
<th>Characteristics of the evaluated service</th>
<th>Adherence</th>
<th>Total</th>
<th>p</th>
<th>OR (CI)**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Desk Attendant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>149</td>
<td>38.0</td>
<td>89</td>
<td>22.7</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>78</td>
<td>19.9</td>
<td>76</td>
<td>19.4</td>
</tr>
<tr>
<td>Scheduling Appointment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>182</td>
<td>46.4</td>
<td>112</td>
<td>28.6</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>43</td>
<td>11.0</td>
<td>55</td>
<td>14.0</td>
</tr>
<tr>
<td>Receiving Team Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>202</td>
<td>51.8</td>
<td>119</td>
<td>30.3</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>22</td>
<td>5.6</td>
<td>48</td>
<td>12.3</td>
</tr>
<tr>
<td>Problems Resolving Capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>209</td>
<td>53.3</td>
<td>118</td>
<td>30.1</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>16</td>
<td>4.1</td>
<td>49</td>
<td>12.5</td>
</tr>
<tr>
<td>Group Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>203</td>
<td>51.8</td>
<td>111</td>
<td>28.3</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>22</td>
<td>5.6</td>
<td>56</td>
<td>14.3</td>
</tr>
<tr>
<td>Medical Professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>214</td>
<td>54.6</td>
<td>125</td>
<td>31.9</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>11</td>
<td>2.8</td>
<td>42</td>
<td>10.7</td>
</tr>
</tbody>
</table>

*Significant p-value in Chi-square test; **OR (CI): odds ratio (confidence interval).

of time for patients, lack of medications for dispensing and the conflicted relationship between user and health professional, causing many individuals chose to seek out a private health plan [4].

The literature confirms that good relationship between users and health professionals is the foundation for treatment adherence and may encourage the patient to take care of his own health, reducing the barriers that leads to not attend group activities, medical appointments and not properly consume the medicines [1] [6]. Corroborating with this thought a study carried out in a city in northeastern of Brazil with 200 hypertensive individuals, and it was found that quality of care was directly related to the reception and establishing ties with the professional team at UBS, since the front desk, which leveraged the change in lifestyle by individuals with SAH [3].

Evaluative study on the implementation of family health care teams showed an improvement in assisting individuals with hypertension in concerning the access to appointments, examinations and medicines, because care has come to be thought out and offered from the territorialisation, the bond and programmatic attention, unlike what happens in traditional health units [10].

In this perspective, factors such as geographical proximity between the health unit and the population dwelling, which facilitates the access to health care system, as well as the good reception, have been identified as relevant in adherence to antihypertensive treatment [7]. Therefore, current health policies, which have been seeking to facilitate patient access to health services and increase the quality of work developed by professionals and managers directly influence treatment adherence process [11].

Furthermore, current researches conducted in Brazil [2] [13], China [14], Palestine [5] and Japan [6] confirm
the strong correlation between dissatisfaction with health services and the issue of non-adherence to medication treatment. From the knowledge of these findings healthcare professionals can develop intervention strategies that aim to provide reception of quality to individuals with hypertension, which increases the chances of them faithfully adhere to the medicines.

The good reception must go beyond the initial attendance in reception of health facilities, it is necessary that during medical and nursing appointments with hypertensive individuals, because in many cases, due mainly to the fact of they do not have symptoms, they also do not adhere to pharmacotherapy, being essential to create and strengthen a bond between user and healthcare professional [14].

In this perspective, the current study have demonstrated that more than 80% of interviewed individuals with SAH were satisfied with the health care received by the family health care team and with the resolution of health problems, indicating a positive outcome for the area covered by UBS studied. Similar study conducted with 120 elder patients showed that the language, attitudes and interests of health professionals in solving community problems represented significant factors in their satisfaction with the health care service and, therefore, for adherence to pharmacotherapy [12]. That said, it is emphasized that professionals using popular language and showing more respect for the patient are more accredited [4].

So related, another study [15] verified the satisfaction’s level with care in primary health care among patients and family and demonstrated that both found themselves very concerned about the quality of information, advice and assistance offered by the public health service and the impersonal way it was transmitted represented determinant factor for user’s dissatisfaction [15].

Consequently, the patient’s and its family orientation (which must have an active role in the hypertensive patient’s treatment) about the disease and the medication treatment prescribed, consist in an important mean of promoting correct adherence to treatment [1]. In this context, nurses have a key role, since the conduction of educational, individual and group activities; and they can equip patients to take informed decisions on the management of treatment. In addition, the guidelines also underpin the knowledge of patients and their families about the complications and disorders that can arise with inadequate blood pressure control [16].

For the effective development of educational activities it is necessary that healthcare professionals and users communicate more effectively so that the professional understand the different perceptions and health needs of individuals with hypertension and their families. Moreover, the efforts of the healthcare team to seek understanding between professional-patient-family is indispensable, because, once everyone involved in the therapeutic process is satisfied, possibly it impacts in a positive adherence and the outcomes from treatment [15].

Regarding group activities, the results of this research showed that approximately 20% of the interviewed were dissatisfied and of these, most were considered non-adherent to medication treatment. The patient’s presence in activities at the UBS and in the community is crucial to the control of hypertension, because the dialogue with professionals brings individual motivation and this, in turn, leads to certain attitudes that contribute to blood pressure reduction. Even this type of therapeutic approach promotes the exchange of experiences between hypertensive individuals themselves, which goes beyond the passive receipt of information through presentations given by professionals [17]. Therefore, frequent meetings/appointments provide better monitoring of blood pressure levels, as well as the opportunity to have more access to information and can serve as basis for compliance with the guidelines on the medication and non-medication treatment [18].

In that sense, the adherence has a strong relational component manifest in interactive processes between people in need of care and health care services that should attend it. Therefore, it is fair to consider medication treatment adherence as part of the desirable outcome of health care in the same way that non-adherence can be an indicator of problems in the quality of the health care process [2].

It is worth mentioning that in other countries, the findings are similar to those found in Brazil. One example is China, where some studies about patient’s satisfaction with health services were performed [13] [19]. These were found that user’s satisfaction is related to the doctor-patient relationship, more specifically with the attention given by this professional. In turn, dissatisfaction was involved with chronicity of treatment, facilities and medical environments and medical expenses.

These findings fortify the results of current study, once given that 86.5% reported being satisfied with the care received by the family health care team physician, and still another study confirms that users with hypertension were more satisfied with relational aspects, such as medical care (92.2%). However, in the same study the positive evaluation of the items related to the structure of the unit and access to appointments drops to 81.2% and 73%, respectively [10].
It is necessary that the health professional be the one responsible for solubility of their actions, giving priority to care of quality, seeking to provide within its possibilities, the best service to its users. To meet the patient and family satisfaction it is essential to have in mind the need in order to deeply understand their demands, which involves collecting and analyzing data and information so that you can understand the perceptions of users and their families. From then one should adopt effective and consistent labor processes, with a view to solving the evident demands [20].

In summary, it can be observed that increasing coverage of basic health services in Brazil, provided by SUS implementation, improved people’s access to primary care, allowing, among other advances, to create bonds among users and staff family health care team, which favors the systematic monitoring and enhancement of health promotion and disease prevention activities [2]. However, one must note that there is no just the simple transfer of information on the part of health teams, especially the nurse, avoiding thus the rise of a gap between the guidance offered by professional and its effective applicability. After all, adherence to treatment reflects, at least in parts, how people understand and take care about their health, not only blaming the health care system, but also the professionals and the population addressed itself to share the responsibilities of the problems once experienced [7].

Taking this into account, the quality of work developed in the health services is fundamental because innovative healthcare actions to groups with chronic illnesses and their families in a UBS are essential. Thus, it must be emphasized that patients with hypertension need more than just physical care, they need, above all, encouragement, hope and understanding, presenting nurses with a main role in this process [21].

5. Limitation of This Study

Despite some methodological limitations of the study, such as the fact that participants were selected from those registered in a program of monitoring of hypertensive patients who performed medication treatment at least for one year, which resulted in a sample that mainly consist of women and elderly, and even the various possible methods for identification of non-adherence to pharmacotherapy, making it difficult the comparability of found results, it can be stated that evidences of an association between non-adherence to medication treatment and dissatisfaction with public services in Primary Care in a Brazilian county points to the need for changes in the way health professionals assist the hypertensive users, which consists a challenge to the health sector in Brazil and in the world.

6. Conclusions

The outcomes pointed that most of the interviewed individuals with hypertension were satisfied with the assistance received in health services and they were adherent to medication treatment. On the other hand, among the non-adherent (42.1%) the dissatisfaction with the offered assistance by public services in primary health care was frequent. There was significant association between non adherence and all characteristics of assessed health service (desk attendant, physician and other professional of health team, scheduling appointments, solving health problems and group activities for individuals with hypertension).

Therefore it is pressing/imperative that health professionals pay attention to reception and assistance of quality, because it is possible to realize that when the health worker put himself in user’s place, he or she seeks to know its real needs, and, whenever possible, tries to serve him or her in an organized and humanized way, it makes patients feel more valued and satisfied, what increases treatment adherence, favoring the control of the disease.

Acknowledgements

This study was financial supported by CNPQ—National Council of Scientific and Technological Development.

References

http://dx.doi.org/10.1590/S0103-21002013000200012


http://dx.doi.org/10.1590/S0103-21002011000200011

http://dx.doi.org/10.4025/ciencucuida.sau.v8i0.9712
Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

Other selected journals from SCIRP are listed as below. Submit your manuscript to us via either submit@scirp.org or Online Submission Portal.