ABSTRACT

Objective: to analyze the treatments and outcomes of patients admitted to the Juquery Hospital from 1930 to 1945. Methods: quanti-qualitative, exploratory-descriptive study, data analysis by the reference of documentary analysis. Data collection was carried out in the Historical-Cultural Heritage Collection of the Juquery Hospital Complex, between March and July 2022. Results: 2,166 medical records were analyzed; 920 medical records without treatment data; 213 without definition of treatments; main types of treatment: 494 monotherapy and 235 polytherapy; 2,005 medical records without data on the effects of treatments. Regarding outcome: 106 unchanged/not improved, 21 improved, 18 worsened, 16 sudden death. There were 366 outcomes without data, 868 deaths of which 496 unspecified, 263 discharged, 365 discharged, 36 absconded and 252 transferred to other psychiatric institutions. Conclusion: treatments were mostly organic and did not produce effective results; outcomes point to inadequacy and inefficiency of psychiatric care and hospitalization.

DESCRIPTORS: Mental health; Psychiatry; Mental health care; Psychiatric hospitals; Psychiatry in literature.
**INTRODUCTION**

The Juquery Hospital was founded in 1898 to treat psychiatric patients. During the first decades of the 20th century, it underwent several reforms, became an important center for psychiatric treatment in the country and an international reference.

In the mid-1930s, the Juquery Hospital began to lose its scientific importance for the São Paulo Medical School, and in the 1940s it had more than 9,000 patients when it had planned up to 1,000 beds, becoming a mere depository for sick people.1 Facts that occurred during the Vargas dictatorship help to explain the decline of the institution.

The coup d’état of 1930 had in mind, in addition to power through the monopoly and application of specific ideology in the manipulation of the population, the claim to change the Brazilian nation to obtain the Estado Novo. The revolution intended to create a new, modern, economically developed state that aimed to change relations with society.2

The Vargas government intended to profoundly transform the social relations of the Brazilian population, including the most intimate ones, such as the determination of the social roles of men and women, with more austere rules for the latter.3 Vargas’ propaganda widely disseminated the idea of the communist danger that was about to take over Brazil, strengthened xenophobia and aversion to individuals who had “bad habits” and created a caste of individuals who would be enemies and targets of the installed regime.4

The Vargas government restricted immigration by propagating xenophobic and racist ideas, as undesirable individuals for jeopardizing the progress of the nation.5 The immigrant suffered from the label of being disorderly, having bad customs and immoral attitudes.6

Vargas, in order to gain support from the working class, adopted a discourse of protection for Brazilian workers as a way of diverting attention from the real focus of national problems.7 Immigrants came to be seen as harmful for competing for jobs that should belong to Brazilians and contributing to growing unemployment. Foreigners were blamed for problems such as strikes, communism, anarchism and anarcho-syndicalism. Such events provided the basis for repressive government measures, initially aimed at urban workers.

Throughout the 1930s, psychiatrists believed in the prevention of mental illness through concepts of mental and racial hygiene. Getúlio Vargas sought to transform part of the population that supposedly brought barriers to development, such as those considered juvenile delinquents, poor people and individuals with mental illnesses, to this end he made use of the power of the State and psychiatric theories, especially the eugenist. From 1928 to 1934, psychiatrists began to identify themselves more and more as hygienists and eugenics became the main purpose, so the black population was the target of this exclusion policy.8 They also needed help from science, the state and society, those like the child debilitated by some cursed tare of parents (syphilis, alcoholism, epileptics, gonorrheic, demented, tuberculous and degenerates), whose lives will be affected to such an
extent that will cause them death, physical and moral misery, lead to crime and theft.9

Psychiatry and the social morality of the time were associated and imprisoned in mental institutions men who did not dedicate themselves to work and women who did not comply with patriarchal norms.10 These behaviors were considered pathological and under medical diagnosis the need for treatment and reclusion was confirmed.

Vargusista propaganda, which instigated fear, combined with so-called scientific eugenist theories provided the government with the necessary justification and support to implement plans to "cleanse" the population considered "undesirable", gained approval from Brazilian society that was influenced by these ideals in search of a better future and a prosperous nation. We note that these groups were chosen to suffer the process of exclusion and seclusion. The Juquery Hospital was a central piece in determining this policy and in receiving the excluded.

The objective of the study was to analyze the treatments and outcomes of those admitted to the Juquery Hospital from 1930 to 1945.

METHODS

Quanti-qualitative, exploratory-descriptive study using documentary analysis. Conducted in the medical records of the Historical Heritage Sector of the Juquery Hospital Complex in the city Franco da Rocha / SP.

Documentary research that resulted in qualitative analysis of primary sources (medical records of inpatients) and secondary sources (books, articles, documents, etc.) considered relevant.

Data collection took place from March to July 2022, due to access having been prohibited prior to February 2022 by the COVID-19 pandemic.

The medical records were selected, completely read, the summary description was recorded on the data sheet, and all pages of the medical records were photographed. Data were transcribed into an Excel database, analyzed by filters and software analysis tools.

Inclusion criteria for medical records were from the date of Getúlio Vargas’ inauguration (November 3, 1930) until his deposition (October 29, 1945), both sexes and all ages. Non-inclusion criterion for medical records without important data for the purpose of the research. There was no exclusion.

Convenience sample, non-probabilistic, due to the limitations of the pandemic defined in 10% of the total medical records.

Quantitative data submitted to simple frequency and percentage statistics, qualitative data to reflective and critical analyzes by the relevant historical texts.

The research was authorized by the management of the Juquery Hospital Complex. It is in accordance with the principles of the Resolution of the National Health Council (CNS) No. 510/2016 and was approved by the Research Ethics Committee (CEP) of the Federal University of São Paulo, filed under CAAE: 40713520.7.0000.5505, opinion number: 4,682,161, on April 30, 2021.

RESULTS

We counted 20,688 medical records of men, women and children hospitalized between 1930 and 1945 and chose 2,166 medical records to be researched.

We found medical records with blank fields, data filled in different places from the specific ones, some mistakes regarding race/ethnicity/color, as it was classified as white, even the photograph indicating the opposite, but we kept for analysis purposes the data described by the doctor.

Data point to almost 2% of medical records with inconclusive diagnosis and 16.23% had no firm diagnosis, this in an environment with overcrowding and few doctors denotes lack of resources and time to perform patient assessment, lack of care and lack of responsibility, because if hospitalized minimally needed evaluation with diagnosis to justify.

Table 1 - Data from participants’ medical records regarding gender and types of treatments. São Paulo, 2023

<table>
<thead>
<tr>
<th>Treatments - Summary</th>
<th>Men</th>
<th>Women</th>
<th>M</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Data</td>
<td>611</td>
<td>272</td>
<td>29</td>
<td>8</td>
<td>920(42,47%)</td>
</tr>
<tr>
<td>Mono treatments</td>
<td>276</td>
<td>192</td>
<td>18</td>
<td>8</td>
<td>494(22,81%)</td>
</tr>
<tr>
<td>Pyretherapy</td>
<td>126</td>
<td>63</td>
<td>4</td>
<td>3</td>
<td>196(9,05%)</td>
</tr>
<tr>
<td>Seizure therapy</td>
<td>62</td>
<td>87</td>
<td>5</td>
<td>3</td>
<td>157(7,25%)</td>
</tr>
</tbody>
</table>
Classical conditions were prevalent in the diagnoses that justified hospitalizations and haunted the social imagination: schizophrenia, manic depressive psychosis (MDP), various psychoses, delirium, paraphrenia, depression and confusion accounted for just over 46% of diagnoses. There were conditions that were not strictly psychiatric, but could have derived symptoms and did not have their own services for care, were considered social ills and individuals were hospitalized in good numbers (about 27%): syphilis, intellectual disability, epilepsy and alcoholism.

Table 1 shows data on the type of treatment and sex. It is noteworthy that 42.47% of the medical records had no treatment data and 9.83% contained treatment data without definition, that is, they make up the majority, which we consider absurd, especially if we analyze that part of these patients remained hospitalized for long periods without indication of treatment.

Table 2 shows data on the outcome of hospitalization.

Source: Data obtained from the medical records of the Historical and Cultural Heritage Archive of the Hospital Complex of the Juquery Hospital (from 1930 to 1945).
**Table 2** - Data in participants’ medical records regarding sex and outcome. São Paulo, 2023

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Men</th>
<th>Women</th>
<th>M</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death</td>
<td>425</td>
<td>408</td>
<td>22</td>
<td>13</td>
<td>868 (40.07%)</td>
</tr>
<tr>
<td>No data</td>
<td>299</td>
<td>45</td>
<td>21</td>
<td>1</td>
<td>366 (16.90%)</td>
</tr>
<tr>
<td>High Output</td>
<td>251</td>
<td>97</td>
<td>10</td>
<td>7</td>
<td>365 (16.85%)</td>
</tr>
<tr>
<td>Transferred to other psychiatric institutions.</td>
<td>209</td>
<td>34</td>
<td>8</td>
<td>1</td>
<td>252 (11.63%)</td>
</tr>
<tr>
<td>Exit; exit without discharge; exit without discharge (per family member)</td>
<td>143</td>
<td>99</td>
<td>18</td>
<td>3</td>
<td>263 (12.14%)</td>
</tr>
<tr>
<td>Evaded</td>
<td>32</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>36 (1.66%)</td>
</tr>
<tr>
<td>Canceled Enrollment</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14 (0.65%)</td>
</tr>
<tr>
<td>Observation cannot be made</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 (0.05%)</td>
</tr>
<tr>
<td>Suicide</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 (0.05%)</td>
</tr>
<tr>
<td>Total</td>
<td>1375</td>
<td>685</td>
<td>81</td>
<td>25</td>
<td>2166 (100%)</td>
</tr>
</tbody>
</table>

**Source:** Data obtained from the medical records of the Historical and Cultural Heritage Archive of the Hospital Complex of the Jiquery Hospital (from 1930 to 1945).
DISCUSSION

There were single modality treatments (monotherapy) and associated treatments (multi-therapy), used in combination as application of malarialotherapy together with application of calcium or sulfurpyrogen or protinjectol to potentiate temperature elevation. There was associated convulsive therapy: after the end of the electroshock series and if there were no changes in the condition, insulin therapy was started, and at the end of the series, if the condition persisted, the patient was transferred to the cardiazol series. Thus, indefinitely, in a continuous flow until the patient was sent to the Colonies or died (more common).

We highlight the Institution’s bias in the dissemination of results, since the so-called renowned scientists published the few positive results and hid negative data, which we found in the research in a broad and majority way.

Pyretherapy

We found that 9.05% of patients received pyrethroid therapy as monotherapy and 9.32% associated with other therapies. This method consisted of raising the body temperature to a high fever, with the aim of supposedly improving psychiatric conditions. It was disseminated after good results were obtained to treat progressive general paralysis (PGP).11

There were several approaches to pyrethrotherapy and it was common in the institution to inject turpentine, raw milk, sulfurpyrethrogens, proteins, vaccines, iodopeptone and malaria inoculation, much preferably used for the treatment of PGP.12-14

A common technique consisted of the administration of aged and oxygenated turpentine, causing “abscess fixation”.13 Commonly, 1 or 2 ml were injected deeply into the gluteal region or outer thigh, leading to local reaction in the area of injection, with pain, heat, hyperemia and formation of sterile pus. A systemic response occurred, with an elevation in body temperature that could reach values above 39°C. Patients were often unable to stand due to functional disability of the limb that received the injection. Fixation abscess was indicated in all cases of intense psychomotor agitation, to calm the patient (schizophrenic agitations, manic conditions). In some circumstances, a fixation abscess was caused in both lower extremities for greater immobilization. Fixation abscess was sometimes used to reduce the intensity of hallucinatory reactions in chronic schizophrenic or paraphrenic patients.

Iodopeptone was an important achievement, effective in combating infections and requiring careful clinical evaluation beforehand to avoid symptoms and breakdown in severity.15 Stimulation of leukocyte defense activity and the appearance of fever occurred in the process.

Peptone as well as bacterial vaccine, colloidal metal, protein, milk, serum or human plasma were often used to provoke hemo-clastic shock, because injected parenterally, they act as foreign bodies and cause immunological reaction called shock: fever and vascular-blood crisis.15

Several medical records indicated the use of raw milk in patients due to the same mechanism of causing high fever, but the patient was harmed by the intense pain caused and the risk of infection, as the milk could be contaminated.

Malarialotherapy consisted of injecting blood from an individual contaminated with malaria, preferably of the tertiary type. Intravenously, the first elevation of temperature could occur in two or three days; intramuscularly, it sometimes took 15 or more days for fever to occur. In the presence of a high temperature, the patient showed marked physical decline. In some cases it was completely ineffective and the disease progressed to incurable.13

Shock therapy

Treatments that caused convulsions, such as cardizoltherapy, insulin therapy and electroshock therapy used at the Juquery Hospital, were called shock therapy.

Pacheco e Silva reports that American researchers used electroshock as a convulsant medium in several psychiatric hospitals and acquired two devices to use electroshock as a new therapeutic method in Brazil.16

Used as monotherapy or in combination with other treatments, convulsive therapy was highlighted, since in both situations it was the second most used treatment. Electroshock (ECT) was widely used in the period studied, either alone or in combination with other treatments. In 1941, they reported in a publication that all patients were unanimous in stating a preference for ECT over cardiazol injections, because with electroshock they lost consciousness and woke up with no memory of what happened, while with cardiazole they experienced a feeling of almost dying and left terrified to be submitted again.16

We see exaggeration, as patients had no influence on the choice of therapy and their complaints about side effects were disregarded.

When patients presented crises of anguish and a sensation of death on receiving cardiazol injections, causing them to oppose further treatment through intense fear, these manifestations were usually due to insufficient doses.13 If the dose was insufficient, it should be repeated immediately and more 01 c.c. added. If the technique was used correctly and each injection caused a convulsion, four or five shocks could usually be given without resistance from the patient. Even then, panic could arise in the patient, which would increase with each session, preventing continuation. Cardiazol applications were twice a week until symptoms remitted and it was recommended to give two or three more injections at intervals of 8, 10 or 12 days until considered cured. It pointed out that although the use of electroshock has now largely surpassed that of cardiazol, it did not mean that it had no precise indications and when there was no access to electroshock, cardiazol could be applied in cases of early schizophrenia or melancholic syndrome.

We found that knowledge of the risks and dangers of insulin and cardiazol treatments was notorious, in the case of Juquery Hospital for the lack of adequate conditions for these practices. The danger that insulin treatment could cause in the patient and some needed high doses of insulin to reach coma.17
In psychiatric hospitals in Pernambuco, regarding the use of insulin, the procedure indicated by Sakel of increasing doses of subcutaneous injections until coma was used, but with the occurrence of undesirable effects such as convulsions, psychic disorders, cardiovascular and respiratory accidents, among others that could have a fatal outcome, often due to the very coma that was wanted to be achieved.18

The use of these methods indicates a scenario of precarious care, in which professionals did not have sufficient resources for adequate treatment, situations of interruption due to financial constraints that led to the suspension of cardiazol treatment if they did not improve after ten applications, suspension of treatments due to lack of professional and material resources.

**Toning**

To apply certain treatments, doctors resorted to the use of tonic drugs, to improve the physical condition of patients before subjecting them to therapies, so that they could endure them and adverse events such as high fever, pain, convulsions, fractures.

**Psychosurgery**

The leukotomy technique of Egas Moniz (1935) was brought to Brazil by a neurosurgeon from the Juquery Hospital, with application in more than a thousand patients in the country, in addition to the purpose of cure, to improve the technique in humans. In 1944, the first scientific article on leukotomy in a large number of patients (160), performed at the Juquery Hospital, was published.19

Of the total of 160, 100 patients were analyzed, all women, without justifying being given, who were old at the Juquery Hospital and had not obtained results with other treatments. Positive data were highlighted and the technique became widely used.20

Psychosurgery was mainly aimed at females, as can be seen in the interventions performed by Mario Yahn on patients in the 5th Women’s Pavilion of the Juquery Hospital.21

The fact that the results of lobotomies were not so positive, since less than 1/3 of them presented pertinent results, made physicians not have a good perception of its use, but the technique was not abandoned, the range of patients receiving it was expanded at the end of the 1940s.19 Physicians found that the problem was not the technique or the knowledge, but the “deteriorated human material” they had in hand. By 1949, at the Juquery Hospital alone, some 700 psychosurgeries had been performed, almost all of them on women.

The “deteriorated human material” referred to patients who, due to the length of hospitalization, lack of assistance and submission to various treatments, had a very poor psychic and physical state.19 At this stage, after exhausting the therapeutic alternatives, they were submitted to leucotomy or lobotomy. We believe that the person was no longer useful or valuable due to their health condition and did not provide treatment. The use of this term refers to the inhumane and insensitive behavior of doctors, who promoted reification of inpatients. We emphasize the perception of the patient as a mere object, so well demonstrated in several quotes from medical records such as this one.

**Various and repeated treatments**

Analysis of medical records revealed a worrying situation, as we found therapies applied to patients in a sequential manner and in many cases with repetition, even with negative results, pointing to experiments or punitive character. We verified these facts in a study on blacks hospitalized at the Juquery Hospital.22

Frequent and successive treatments, often followed immediately, brought a lot of wear and tear and physical impoverishment to the patient and aggravated cases of pre-existing conditions that led to death.

**Psychopharmaceuticals**

Our data are for patients who were hospitalized between 1930 and 1945, some of whom were hospitalized for longer and underwent treatment with psychotropic drugs, discovered in the late 1950s. We retained these data because of the importance of treatment effects and outcomes.

**Treatment effects**

The absence of data on treatment effects in 92.57% of the medical records is alarming and reveals the failure of care and lack of responsibility of governments to provide minimum care to patients and Vargas’ policy of excluding social undesirables. The lack of interest in keeping adequate and up-to-date records of the treatments carried out may also be due to not damaging the good image propagated by the Institution.

When analyzing the few data on treatments, there are 6.46% of patients who did not show improvement, worsened or died, compared to 0.97% of those considered improved. This disparity indicates that there was a tendency to publicize only those treatments considered successful, while those with negative results were ignored.

The treatments offered to patients were limited and generally ineffective. The lack of resources and the precariousness of the hospital environment were factors that further aggravated the situation of patients and the working conditions of the few health professionals. It was frequent that interns were responsible for assisting in the application of therapies in their companions, evidencing a lack of human and material resources.

**Outcome of hospitalization**

We identified an alarming reality: the sum of the occurrences of deaths (40.07%), discharges (12.14%), escapees (1.66%), suicide (0.05%) and transfer (11.63%) of patients to other institutions totaled 65.55%, which represents the majority of patients who were not effectively treated or who failed to recover.

The low percentage of patients who were discharged (16.85%) shows the ineffectiveness of hospitalization in the Institution, showing how much it could not adequately treat and succeed in its treatment purpose.

The transfer of patients to other hospitalization institutions must have caused negative consequences, aggravating or determining the chronification of their condition and the eternal process of exclusion and violence.
Deaths
From 1930 to 1945, 40.7% of patients died, a sad and recurring reality. Several factors contributed to this scenario, including lack of adequate medical care, use of aggressive treatments, poor nutritional status, cachexia, verminoses and infections resulting from poor hygiene and care conditions. This, coupled with the side effects and adverse events of the treatments that further depleted the deficient clinical conditions, was a recipe for death. Escapes were also frequent, and patients often ended up exposing themselves to serious risks during these attempts and died, such as those who drowned in the Juquery River.

Treatment or torture?
We believe that patients at Juquery Hospital who received often ineffective and repetitive treatments must have perceived themselves as being subjected to torture, rather than receiving relief. The repetition of these treatments seemed endless and increased patients’ sense of despair, isolation and pain, and they felt in a permanent cycle of suffering.

Together, these conditions contributed to an extremely high mortality rate, a reality that revealed the failure of the care system of the time, based on violent and inhumane practices and left patients at the mercy of degrading and unhealthy conditions. Dying in Juquery Hospital was a distressing and often prolonged experience, marked by cold, hunger, lack of medical care and adequate treatment. Many patients were frequent victims of diseases such as dysentery and worms, which spread easily in the unhealthy and overcrowded environment of the hospital. Cachexia, a state of extreme malnutrition, was responsible for the death of many patients.

To make matters worse, we still have those who remained for long and terrible years.

We conclude that there was an omission on the part of the State, Juquery professionals and society in relation to human rights and adequate psychiatric care.

CONSIDERATIONS
Many of the treatments were ineffective, repetitive, experimental and cruel. There were 65.55% of patients whose hospitalization did not result in a positive outcome, of which the majority died. This in an institution considered model and scientific, but which became an auxiliary line of the policy of violence and exclusion of the Vargas government.

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