THE IMPACT OF MENTAL HEALTH WORKSHOPS FOR COMMUNITY PHYSICIANS IN INCREASING ACCESS TO MENTAL HEALTH CARE IN A BRAZILIAN PRIMARY CARE SETTING

MARIA HELENA PEREIRA PIRES DE OLIVEIRA

A dissertation submitted in partial fulfillment of the requirements for the Degree of Masters in Primary Care Mental Health

Dissertação para obtenção do grau de Mestre em Saúde Mental nos Cuidados Primários

at Faculdade de Ciências Médicas | NOVA Medical School of NOVA University Lisbon

December, 2019

THE IMPACT OF MENTAL HEALTH WORKSHOPS FOR COMMUNITY PHYSICIANS IN INCREASING ACCESS TO MENTAL HEALTH CARE IN A BRAZILIAN PRIMARY CARE SETTING

Maria Helena Pereira Pires de Oliveira

Supervisors: Maria Isabel Pereira dos Santos, Associate Professor of NOVA Medical School

A dissertation submitted in partial fulfillment of the requirements for the Degree of Masters in Primary Care Mental Health

Dissertação para obtenção do grau de Mestre em Saúde Mental nos Cuidados Primários

December, 2019

ACKNOWLEDGEMENTS

ABSTRACT

Background: Many individuals with mental health disorders remain untreated although effective treatment exists. This is known as the mental health gap. The gap is particularly wide in low and middle income countries, such as Brazil. One of the strategies suggested by the World Health Organization to reduce the gap, is to integrate mental health into primary care. A group of family physicians and psychiatrist created a collaborative care model, in Brasilia, Federal District, Brazil. A series of workshops were delivered to primary care doctors, covering depression, anxiety, psychosis and substance misuse.

Objective: To measure mental health referrals from primary to secondary care the year before the beginning of these workshops, and the year after, including the months in which the workshops took place.

Method: An observational longitudinal study was conducted, with monthly measures of referrals from primary care to secondary care psychiatry, between October 2017 and October 2019. Twenty physicians who enrolled in the workshops were included in the analysis. The control group consists of 20 physicians working in the same health district who did not attend the workshops. All tests were performed with 95% confidence. The tests applied to samples were: Shapiro-Wilk Normality Test, Wilcoxon Test for two samples and Kruskall Wallis test for comparison of several samples.

Results: For those who attended the workshops at least twice, there was a statistically significant decline in referrals, with a P value of 0.04. There is a general trend toward increase in referrals for those who did not attend the workshops, although with no statistical significance, probably due to sample size.

Conclusion: The workshops seem to be an interesting strategy to increase access to mental health in primary care, and reduce referrals to secondary care.

Keywords: mental health gap, primary care, collaborative care, workshops, referrals, access

SUMMARY

1. INTRODUCTION

A group of family physicians developed a collaborative care model, which will be described ahead, for mental health in primary care. This model was developed considering limitations in the Brazilian health setting. Specifically in our area of interest, according to local government information the numbers include one psychiatrist for 100 thousand inhabitants. According to the Global Health Observatory 2016, the rate of psychiatrists in high income countries is 75 times greater [2]. It also takes into account the strength of a fairly well organized and accessible primary care, with a 76% populational coverage of in 2018, and 58,1% in 2019[1].

As part of this project, a series of workshops were delivered to primary care doctors, both with and without a family medicine background. Four workshops were delivered, with a month gap in between each module. Each module was delivered in one day, with theoretical work in the mornings and practical work in the afternoons. The general themes were: depression, anxiety, substance misuse, and psychosis. The main focus was a theoretical background, reviewing epidemiology, diagnosis, treatment protocols and follow up, adapting evidence based practices to the primary care setting in Brasilia, Brazil. After the theoretical work in the mornings, the afternoons consisted of joint appointments. Patients were taken from referral lists to secondary care, with the intention of showing how most cases can be managed in primary care and the advantages of managing these cases in a community-based care setting.

The team who developed the workshops consists of one psychiatrist, one family doctor and a group of 3 family medicine first and second year residents. The psychiatrist supervised all appointments, being available for any specialized help if needed. The participating family doctors were divided into 3 groups, each supervised by a member of the team described above.

In 2018/2019, workshops were delivered to 7 groups of approximately 12 doctors each, adding up to 84 primary care doctors.

The Federal District, which is the capital of Brazil, is divided into 7 health districts: south, southwest, central, south-central, north, east and west[3]. These are administrative divisions, not necessarily taking into account population size or characteristics. The workshops took place initially in three different districts: north, south and west. The districts in which workshops were initially delivered were chosen based ability to articulate with local management.

FIGURE 1: Brasilia Health Districts [3]
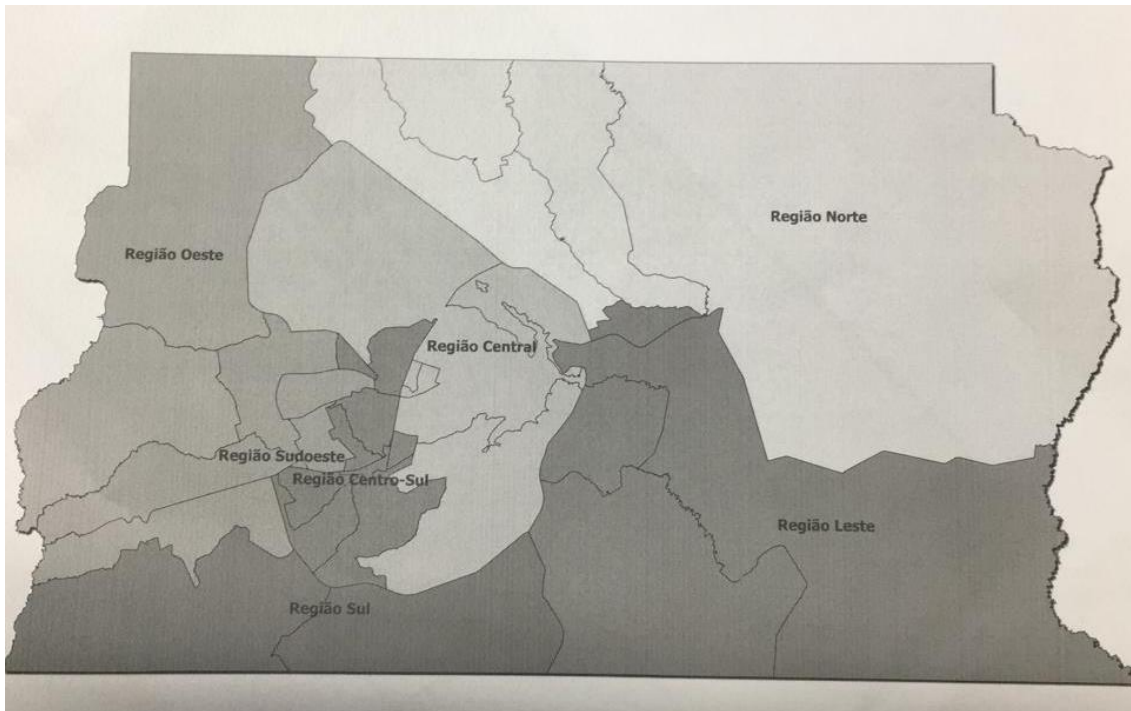
The physicians who attended the workshops gave very positive feedback. They reported being more secure and as a consequence, being able to manage more mental health cases. As they saw a very positive outcome in these cases, they felt encouraged to reduce their referrals to secondary care. Therefore, these workshops apparently contributed to reduce the gap in mental health care in our setting, by expanding positive outcomes in primary care.

The main goal of this dissertation is to measure the impact of mental health workshops for primary care physicians in increasing access to mental health care in a Brazilian primary care setting. The workshops were developed as a result of the increase in referrals to secondary care, and a direct increase in waiting lists for psychiatry. Referrals rate is considered an indirect measure of access to care in mental health.

This model has several strengths and can be easily reproduced in many Brazilian primary care settings:

- It is adapted to the local reality and needs, as it is planned and delivered by doctors who work in this specific setting.
- It is delivered by a group consisting mostly of family doctors, emphasizing the importance of primary care tools in dealing with mental health issues.

- It combines both theoretical and practical work.

2. LITERATURE REVIEW

2.1. SUS (Sistema Único de Saúde)

The Brazilian Health Reform Movement was constituted in the process of broad mobilization of Brazilian society for redemocratization, as part of an inclusive project, advocating health as a social and universal right. This movement launched the foundations for the Brazilian Health care system, SUS (Sistema Único de Saúde)[4].

SUS was instituted by the Federal Constitution of 1988[5]. Currently, it is considered the largest social inclusion policy of the Brazilian people and the largest public health system in the world, due to the size of the population[6].

2.2. Primary Health Care (PHC)

Vast evidence suggests that national health systems anchored on primary care show better health results, are more equitable and cost-effective [7].

In Europe, strong primary care is associated with positive impact on improving overall population health, reducing socioeconomic inequalities in health and avoiding potentially unnecessary hospitalizations[8].

Each country opted for its own PHC organization, influenced by social, demographic, epidemiological and cultural factors. In Brazil, throughout the historical process of the health system's implementation, the Family Health Strategy (FHS) has gradually developed as the main lever for PHC advancement[9].

When establishing the Family Health Strategy (FHS), Brazil innovated and advanced in shaping a highly cost-effective Primary Care model, based on a basic team consisting of physician, nurse, dental surgeon, nursing technicians and dentists; along with community health agents [10].

This structure has high potential, because it is dedicated not only to meet specific health demands, but to address health/ illness processes, the most frequent health issues in that area, families and communities. In addition, the team develops education, health promotion and disease prevention actions. Therefore, it goes beyond providing an increased health coverage [10].

The national primary care policy (PNAB) is also guided by territorialization and a defined population. These two concepts allow decentralized planning and actions focused on

a specific territory, acting on health determinants that are part of that specific geographical space. The actions are aimed at health surveillance, promotion, protection and recovery. In this territory is the defined population for which each FHS team is accountable, ensuring the continuity of care[11].

2.3. The Mental Health Gap

In 2004, Kohn and colleagues reported that many individuals with mental health disorders remain untreated although effective treatment exists. This became known as the mental health gap; and the time between the onset of symptoms and the seeking of care is called the mental health lag[12].

The Series of Articles "No Health Without Mental Health", published by the Lancet in 2007, launched a worldwide discussion and movement on the proper treatment of mental health conditions around the globe. About 14% of the global burden of disease has been attributed to neuropsychiatric disorders. This series stated clearly that mental health needed to be integrated into all aspects of health and social policy, as it also affects the rates and outcomes of other health conditions[13].

Innovative strategies are needed to reduce the gap in mental health care. One of these strategies is to integrate mental health into primary care, as even where there is a lack of specialized mental health care, there seems to be a minimally organized primary care system [14].

2.4. Collaborative and Integrated Care

In order to expand and qualify the provision of mental health care, the World Health Organization (WHO), in partnership with the World Organization of Family Doctors (WONCA), published the document "Integrating Mental Health into Primary Care", bringing together global guidelines for effective integration of mental health care into primary care. It reassures the importance of this integration, highlighting seven main points: (1) the high disease burden of mental disorders; (2) the connection between physical and mental health problems; (3) the huge gap in access and treatment for mental disorders. It also emphasizes that mental health care in PHC enables: (4) increased access, (5) promotion of human rights in this field; (6) availability and cost-effectiveness; and (7) good clinical outcomes [15].

Ivbijaro and Funk highlight the strengths of PHC for the provision of mental health care[16], anchored on PHCs essential values (access, continuity and coordination) and

derivatives (family approach, cultural competence) defined by Starfield.[7] The authors list key messages that should guide the integration of mental health into primary care: (1) integrating mental health into primary care is the most viable way of closing the gap; (2) skills and competencies are necessary to correctly assess and treat mental health conditions, it is essential that primary care workers are properly trained and supported by mental health teams; (3) there is no single best model that can be followed by all countries, local solutions following broader principles have been the most successful; (4) primary care should be coordinated with a network of services at different levels of care [16].

Collaborative and integrated care are terms that have been used internationally to describe a model of care designed to improve mental health care within a primary care setting. There is a continuum between collaborative and integrated care, that goes from two health teams working with (collaborative) each other to working within (integrated). Our goal is to strive toward full integration[17].

2.5. The Brazilian Collaborative Care Model

SUS is coordinated by the National Health Ministry. The ministry is responsible for national guidelines and orientations. An important publication for Primary Care in Brazil, The Primary Care Book 34 guides mental health care in PHC, reiterates that mental health is not disconnected from physical health. Therefore, mental health needs should be regularly assessed in patients who seek PHC and that mental health actions are part of a PHC's team work[18].

In 2014, the first multicenter Brazilian study on common mental health disorders in PHC was published. Depression and anxiety were the most common mental health issues. The study included four Brazilian capitals: Rio de Janeiro, São Paulo, Fortaleza and Porto Alegre. The rate of mental disorders in PHC users were 51.9%, 53.3%, 64.3% and 57.7%, respectively. Mental health problems were especially high in people with lower educational levels, low income, women and the unemployed[19].

Recently, Gerbaldo and colleagues (2018) studied mental health care in 29,778 Family Health Strategy teams across Brazil (87.1% of all Brazilian teams). This study showed that 60.3% of the FHS professionals felt unskilled to work with mental health disorders[20].

In 2011, the Brazilian Ministry of Health published a practical guide describing a specific model of collaborative care, called matrix support. The definition given in the guide says that matrix support is "a new way of producing health in which two or more teams, in a

shared construction process, create a proposal for pedagogical-therapeutic interventions." The concept of matrix support, formulated by Gastão Wagner Campos in 1999, has structured a type of collaborative care between mental health and primary care in Brazil"[21].

This new integrative proposal aims to transform the traditional logic of health care systems such as referrals, protocols and regulatory centers into a horizontal interaction and integration between services in different levels of care. The implementation of matrix support is decentralized and should be in tune with local realities. The guide provides a variety of instruments that can be used, including shared consultations and home visits[21].

2.6. Mental Health Training in Primary Care

As mentioned above, training in mental health is essential to an effective integration of mental health into primary care, and is one of the main strategies in reducing the mental health gap. [14]Nevertheless, according to WHO's Mental Health Atlas 2011, globally only 2,8% of training offered to general practitioners is devoted to psychiatry and mental health.[22]

When considering different methodologies, teaching and training can be divided into: interactive, didatic or a combination. Based on educational evidence, theory and principles, Khan and Coomarasamy propose a hierarchy of teaching methods for evidence-based medicine, placing interactive and clinically integrated teaching and learning as the most effective methods. Interactive teaching methods include small group discussion, clinical practical sessions, role play and simulations[23],[24].

As in clinical practice, there is a need to evaluate outcomes when it comes to educational interventions and training. However, the subject matter is complex and there is a lack of reliable outcome measures. Kirkpatrick described four levels of evaluation: evaluation of satisfaction or happiness; evaluation of learning (skills aquired); evaluation of behavior or transfer of learning to work place; and finally, evaluation of results[25].

3. DESIGN AND METHODOLOGY

3.1. General Objective

The general objective of this study is to analyze the impact of mental health workshops for primary care physicians in a Brazilian setting.

3.2. Specific Objectives

The specific objectives are:
- To measure mental health referrals from primary to secondary care the year before the beginning of these workshops, and the year after, including the months in which the workshops took place. Our hypothesis is that there will be a general reduction in referrals as primary care doctors feel more confident to handle mental health issues. Data available for analysis are from the southern health district only.

3.3. Study Design

In order to assess these measures, the study has an observational longitudinal design, with monthly measures between October 2017 and October 2019. All physicians who attended at least two modules of the workshop were included in the final analysis.

Survey data collection is secondary. The data used had already been collected by course managers as a form of workshop audit and evaluation. The course evaluation took place in only one health district (south), therefore data from the other districts were not available for analysis.

3.4. Ethics Approval

The Study was approved by Ethics Research Committee NMS|FCM-UNL (CEFCM), on August 21st, 2019 (attached).

3.5. Methods

To study whether there was a decrease in the number of referrals, we constructed a linear regression and median equality test for paired samples. In this study all tests were

performed with 95% confidence and the following measures were used: average, variance and theoretical quantiles. The tests applied to samples were: Shapiro-Wilk Normality Test, Wilcoxon Test for two samples and Kruskall Wallis test for comparison of several samples.

3.6. Sample Selection

FIGURE 2: Physician attendance according to the number of modules. Fourteen physicians attended 2 or more modules.
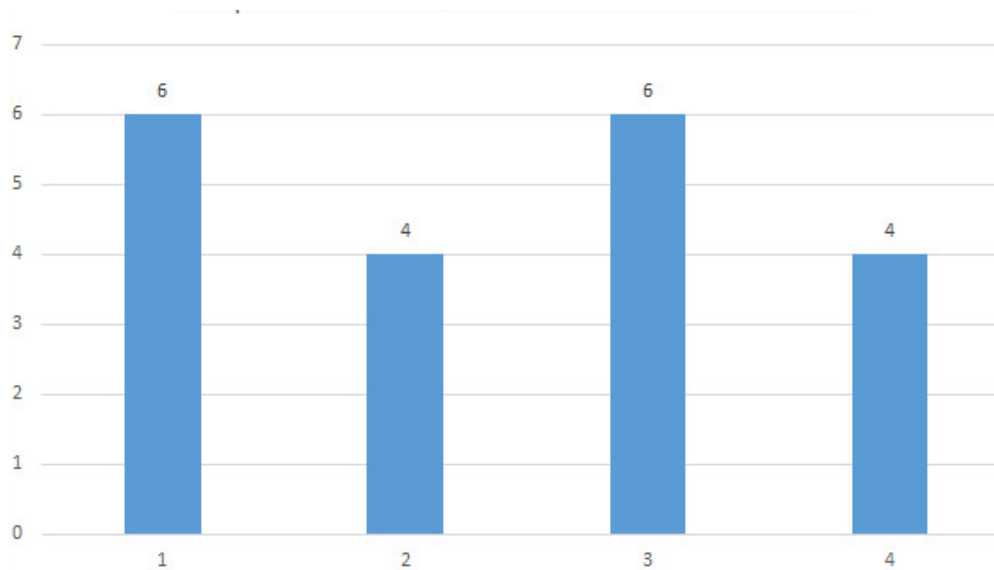
There were no specific selection criteria for participation in the workshops, all physicians were responsible for a primary care team in the Southern Health District of the Federal District of Brazil. Enrollment in the workshops was decided by local managers, with no interference of workshop organizers. Criteria used included interest and availability. Twenty physicians were included in the workshops. Fourteen physicians who attended two or more modules of our workshops were included in the main analysis.

Our interest group includes primary care physicians in the Southern Health District who were enrolled in the mental health workshops. Analysis were performed for all physicians registered in the workshops, and a separate analysis included only physicians who attended two or more modules.

The control sample was selected from primary care physicians working in the Southern Health District, who were not enrolled. The allocation of physicians in this group was not random. The physicians in the online referral system who had under 5 referrals were

excluded, as well as physicians with clustered referrals in one time period. These clusters are probably due to relocation of the physicians to other health districts.

The control group consists of the 20 physicians who most referred patients to psychiatry. Because groups are compared within themselves, and we are analyzing trends, the choice does not interfere with the analysis.

3.7. Analysis Time frame

Due to incomplete register and lack of data, all analysis were performed within the period between February 2018 and September 2019, excluding October 2018.

4. RESULTS

4.1. Referral Numbers

According to the online referral system used by the Federal District of Brazil (SISREG-http://sisregiii.saude.gov.br/), the distribution of referrals from primary care to secondary care psychiatry in the years 2017 through 2019 was given by:

FIGURE 3. Distribution of referrals by all physicians in the years 2017-2019, South, DF
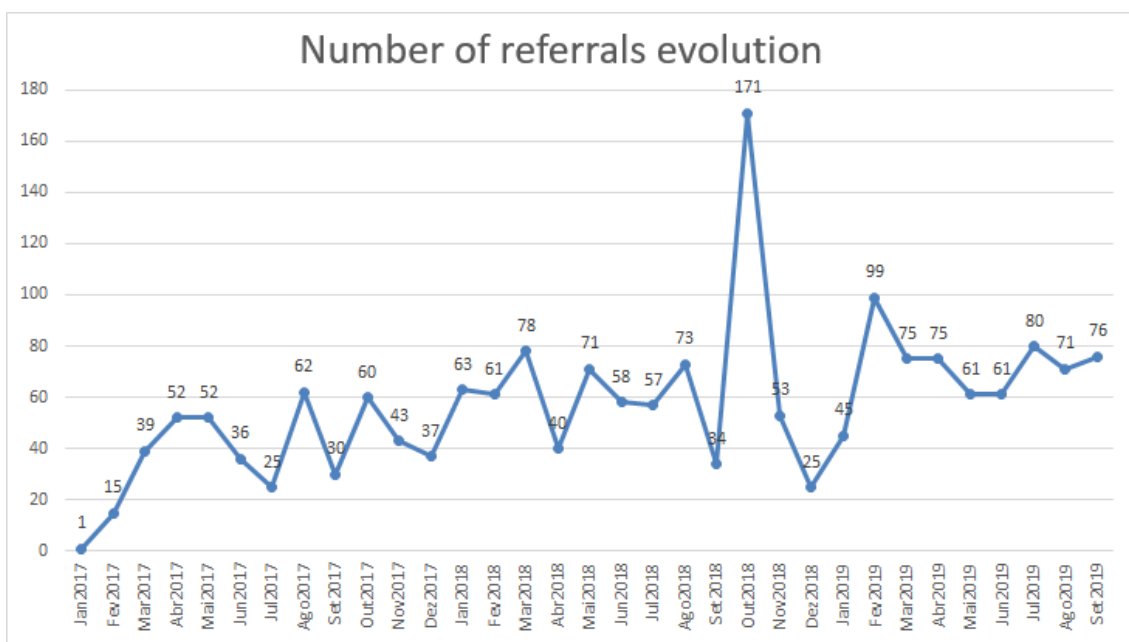
Note that in October 2018 there is a significant increase in referrals. This is due to change in national referral systems. All referred patients still waiting for psychiatric appointments were contacted and reassessed. In October 2018 there were over 300 records, but after a cleanup consisting of removing patients who were registered more than once, the total number of referrals added up to 171. This data may not be completely trusted, due to repeated names and other factors, October 2018 was withdrawn from the final analysis. It was kept in this figure for visual effects only.

During summer holidays (December and January), there is a general decrease in referrals. However, throughout this time period, there is a slight tendency for increase. In 2019, more referrals were registered, when compared to the two previous years.

FIGURE 4. Distribution of referrals by workshop participants, in the years 2017-2019, South, DF
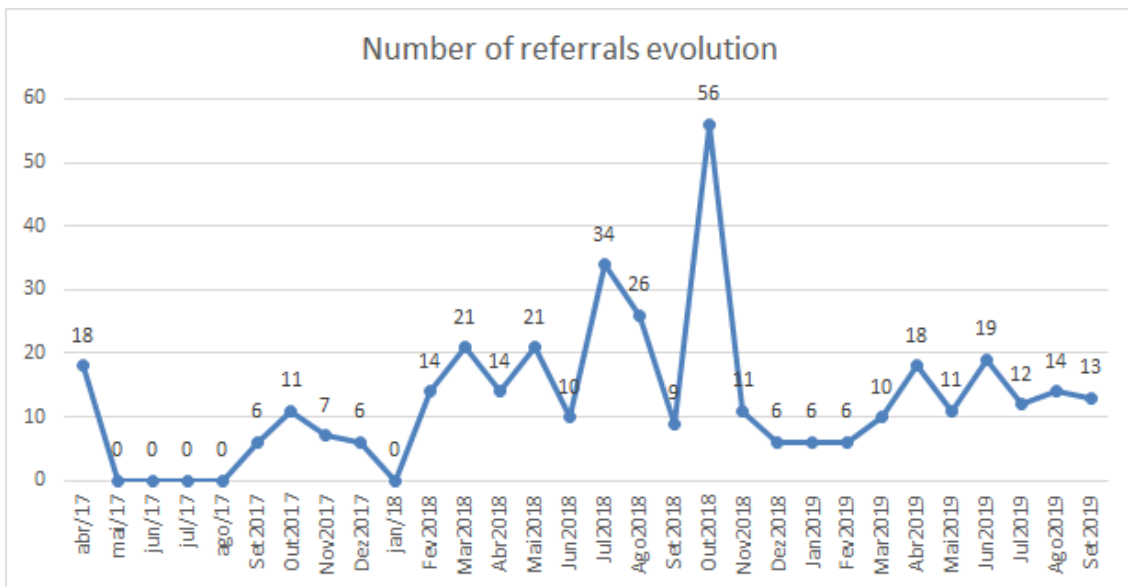
Note that there are several missing records, and the same problem described above occurred in October 2018. There were over 100 records of referrals, but after closer analysis of the data, only 5 referrals were documented.

4.2. Referral Trends

There is an impression of a general increase in referrals in this time period. To confirm this effect, a linear regression analysis was performed in both groups. However, with a p-value of 0.29 we cannot state that the referrals increased over time.

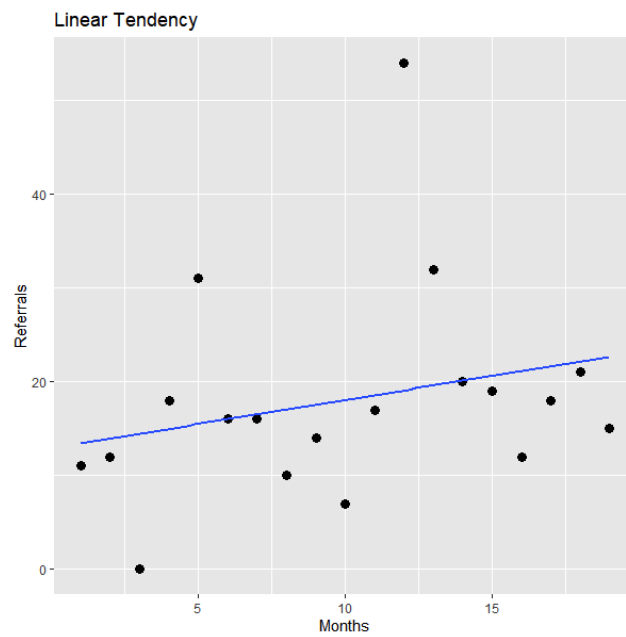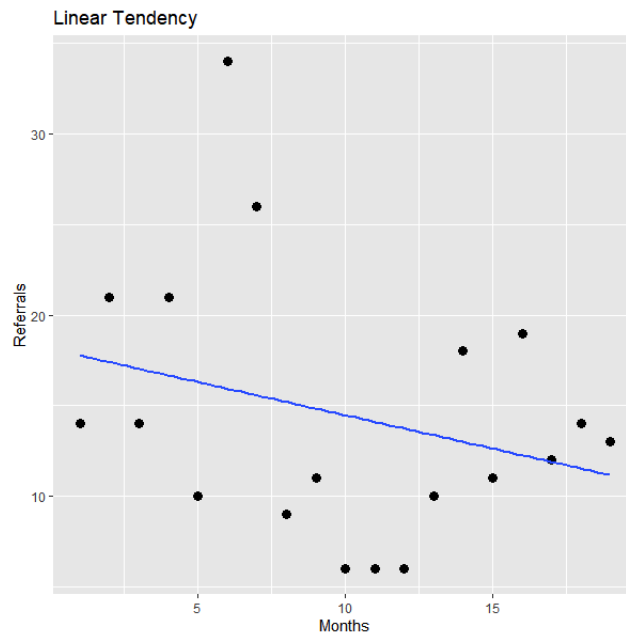**FIGURE 6:** Referral Trend Control Sample

FIGURE 7: Referral Trend Workshop sample

Visually, the graph shows a declinatory tendency in referrals in the workshop group. To confirm the trend, a Simple Regression model was built with the number of referrals and months.

The coefficient of the Month variable is negative, which confirms the hypothesis that there is a decline in the number of referrals. However, according to the observed p-value 0.239, it is not possible to state that there is a decrease in the amount of referrals over time.

4.3. Comparison of Samples

Comparison of samples rejected the hypothesis that the distribution of referrals was normal, with p-value of 0.004. Making the use of non-parametric techniques necessary.

The Wilcoxon test is a non-parametric technique that tests for sample equality. The test shows whether the medians of the samples are equal before and after the workshops.

For the control sample, with a p-value of 0.395, there is no statistically significant difference between the two periods. The periods before and after the Wilcoxon test correspond to February 2018 through September 2018 and February 2019 through September 2019.

FIGURE 8: Comparison of referrals between time periods (before and after) for the control sample. P-value of 0.2848.
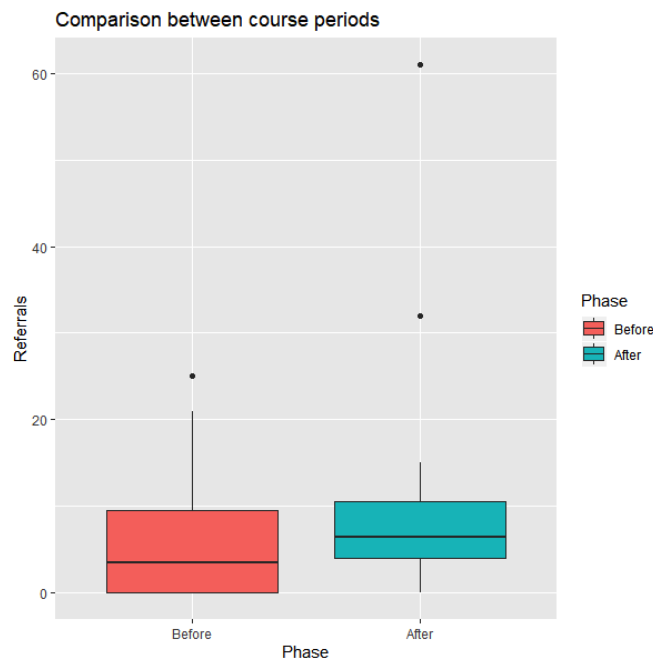
In order to compare three time periods (before, during and after the workshops) the Kruskall Wallis test was performed, which presented a p-value of 0.2848. Again, there is no

statistically significant change in clinician's behaviors (referrals) when comparing the three time periods. The period prior to the workshops corresponds to May 2018 through September 2018, during corresponds to November 2018 through April 2019 and after corresponds to May 2019 through September 2019.
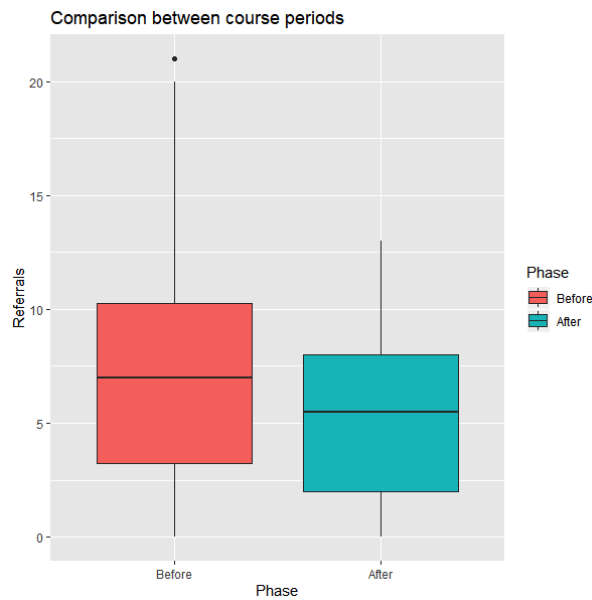
FIGURE 9: Comparison of referrals among three time periods (before, during and after) for the control sample. P-value of 0.2848.
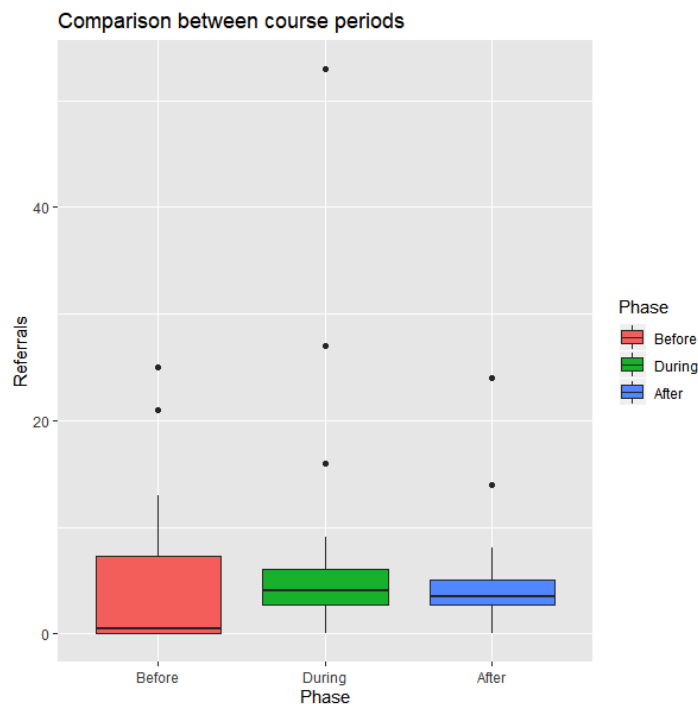
For the control group, there was a small increase in the number of referrals, but there is no evidence of a change in clinician behavior. Physicians who did not participate in the workshops maintained the same average of referrals over the three time periods. Note that two comparisons are made with different time periods, so as to prevent external factors such as holidays and medical leaves, from affecting the results.

Applying the same tests used for the control group, the Wilcoxon test for median equality before and after the workshops resulted in a p-value of 0.2659, which does not allow us to conclude that there was a significant decrease in the amount of referrals.

FIGURE 10: Comparison of referrals between time periods (before and after) for the workshop sample. P-value of 0.2659.

The Kruskall Wallis tests for the three time periods before, during and after the workshops, found a p-value of 0.77. It is not possible to state that there is a difference in the amount of referrals among the time periods.

FIGURE 11: Comparison of referrals among three time periods (before, during and after) for the workshop sample. P-value of 0.77.
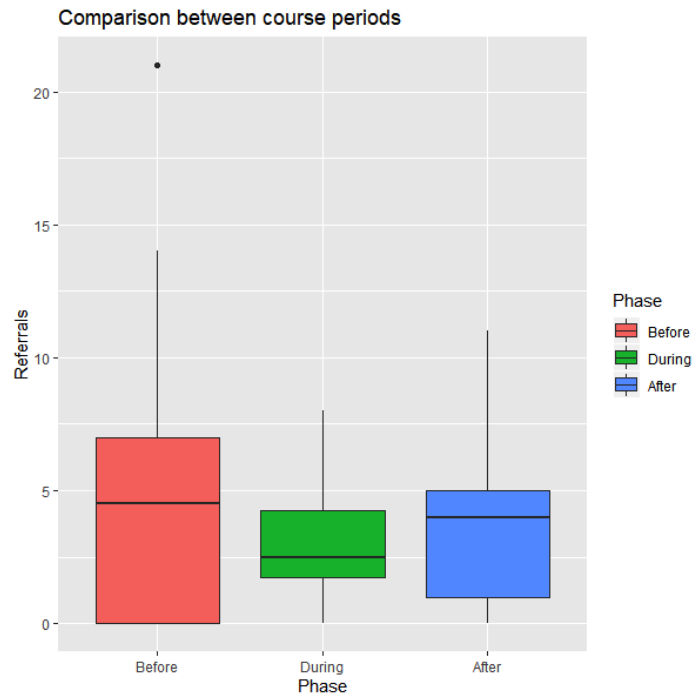
Examining our interest group graphs and p-values, it is not possible to state that participation in the workshops reduce referrals to secondary care. However, it can be noted that there is a descending trend for the physicians who attended the workshops and an ascending trend for physicians in the control group.

It is also possible to notice that during the workshops, there is a meaningful drop when compared to other periods, but even so, it is not statistically significant, probably due to sample size.

The analysis reported so far did not take into account attendance. All physicians who were registered and participated in at least on module were included.

Among the doctors enrolled, fourteen physicians who participated in two or more course modules were included for a review of the Wilcoxon test for the number of referrals before and after. As a downward trend was observed, we opted for a unilateral right-hand test.

The P-value obtained from the new Wilcoxon test is 0.04, and thus we can reject the null hypothesis and state there was a significant decrease in the number of referrals for physicians who attended two or more modules.

FIGURE 12: Comparison of referrals between time periods (before and after) for the group of physicians who attended two or more modules. P-value of 0.04.
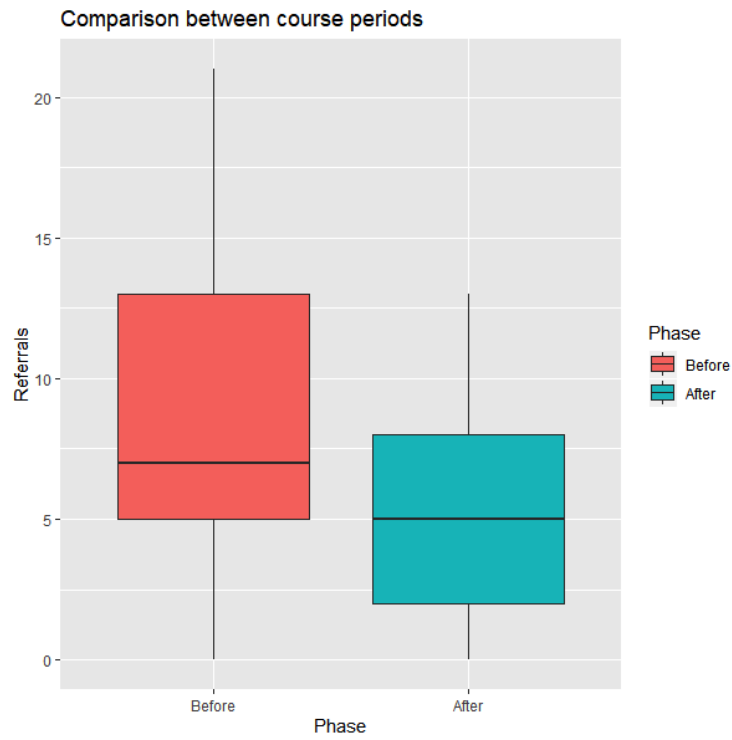
5. DISCUSSION

This study is part of a broader project in Brasília, Brazil that aims at reducing the mental health gap by increasing access in primary care. The perception of a growing number of referrals to psychiatric secondary care, brought to the attention of local managers the importance of specific skills and competencies to handle mental health conditions.

These are the first outcomes measured after almost two years of continuous workshops.

What was observed in these measures, is exactly what the course managers expected, consistent with the literature concerning collaborative and integrative care.

- For those who attended the workshops at least twice, there was a statistically significant decline in referrals. As mentioned, this would be an indirect measurement of behavior change or transfer of learning to workplace [23].

- There is a clear general trend toward increase in referrals for physicians who did not participate in the workshops. One of the hypothesis is that there is a greater recognition of mental health conditions, but primary care physicians don't feel confident to manage these issues.

  o Although with no statistical significance, probably due to small sample size, we observed a decreasing trend in physicians participating in the workshops. It is possible to assume that with a greater sample this trend would show significance.

  o Again, with no statistical significance, during the five months in which the workshops were delivered, there was a larger drop in referrals. The period in which the workshops were ongoing is closer to what is considered collaborative care. Physicians had the opportunity to review their questions and to bring in their most difficult cases. Due to short follow up, it is not possible to determine a lasting effect.

  o Because the workshops were still experimental, support from local managers was irregular, which had a direct impact on attendance. We were unable to maintain a 75% attendance during the modules, reducing our sample size significantly.

This dissertation shows that the workshops delivered had a positive impact on reducing referrals, and are a valuable tool for improving integration in our area. The decline

in referrals shows that the workshops were effective in changing work processes. The study leaves a number of questions for future investigation.

- This study does not evaluate direct outcomes form patients. Future studies are necessary to assure that patients are being cared for using our best available evidence.

- A continuous monitoring of referrals should be set up for a better understanding of referral trends in time. Workshops are now ongoing, with official support from local managers. A new group of 30 physicians are now enrolled, since October 2019. So far attendance has been regular, which will provide us with a larger sample size.

- For the last 3 groups of physicians, a module on learning disabilities and attention deficit and hyperactivity disorder was included. There is a separate online referral system for patients under eighteen. Evaluating outcomes for these patients is particularly interesting, since ADHD is highly prevalent, but there is still no international consensus as to whether initial diagnosis and stimulant use should be prescribed in primary care[26].

6. PERSPECTIVES

With local support from managers, the workshops are now ongoing. However, it is clear that the workshops alone are not enough to start an effective collaborative care model in our area. There is still the need for constant support for family physicians in order to reduce the gap in mental health.

One of our future projects is to include the former family medicine residents who participated in the workshops as consultants, and who are very well trained in managing even complex mental health issues as references for other primary care teams. The idea is to create a collaborative care model within primary care teams.
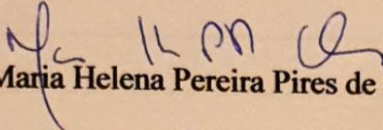
7. REFERENCES

1. www.ouvidoria.df.gov.br.
2. Organization WH. No Title. Global Health Observatory.
3. http://www.saude.df.gov.br/superintendencias/.
4. Arouca S. O dilema preventivista: contribuição para a compreensão e crítica da medicina preventiva. O dilema preventivista: contribuição para a compreensão e crítica da medicina preventiva. doi:10.7476/9788575416105
5. Paim JS. Thirty years of the unified health system (SUS). *Cienc e Saude Coletiva*. 2018;23(6):1723-1728. doi:10.1590/1413-81232018236.09172018
6. BRASIL. Ministério da Saúde. Conselho Nacional de Saúde. 14ª Conferência Nacional de Saúde. Todos usam o SUS. SUS na Seguridade Social: Política Pública, Patrimônio do Povo Brasileiro. Relatório Final. 2012:230. http://conselho.saude.gov.br/biblioteca/relatorios/img/14_cns relatorio_final.pdf.
7. Barkley S, Starfield B, Shi L, Macinko J. The contribution of primary care to health systems and health. *Fam Med Class Pap*. 2016;83(3):191-239. doi:10.1201/9781315365305
8. Kringos DS, Boerma W, Van Der Zee J, Groenewegen P. Europe's strong primary care systems are linked to better population health but alsoto higher health spending. *Health Aff*. 2013;32(4):686-694. doi:10.1377/hlthaff.2012.1242
9. Macinko J, Mendonça CS. Estratégia Saúde da Família, um forte modelo de Atenção Primária à Saúde que traz resultados. *Saúde em Debate*. 2018;42(spe1):18-37. doi:10.1590/0103-11042018s102
10. Rodrigues RD, Anderson MIP. Saúde da Família: uma estratégia necessária. *Rev Bras Med Família e Comunidade*. 2011;6(18):21-24. doi:10.5712/rbmfc6(18)247
11. PNAB.
12. Abramowitz MZ, Greenberg D, Levav I. Editorial: Treatment gap in mental health care. *Isr J Psychiatry Relat Sci*. 2008;45(2):80-82.
13. Prince M, Patel V, Saxena S, et al. No health without mental health. *Lancet*. 2007;370(9590):859-877. doi:10.1016/S0140-6736(07)61238-0
14. Rebello TJ, Marques A, Gureje O, Pike KM. Innovative strategies for closing the mental health treatment gap globally. *Curr Opin Psychiatry*. 2014;27(4):308-314. doi:10.1097/YCO.0000000000000068
15. Ustun TB, Gater R. Integrating mental health into primary care. *Curr Opin Psychiatry7(2)()(pp 173-180), 1994Date Publ 1994*. 1994;(2):173-180.
16. Ivbijaro G, Funk M. No mental health without primary care. *Ment Health Fam Med*. 2008;5(3):127-128.
17. Ivbijaro GO, Enum Y, Khan AA, Lam SSK, Gabzdyl A. Collaborative Care: Models for Treatment of Patients with Complex Medical-Psychiatric Conditions. *Curr Psychiatry Rep*. 2014;16(11). doi:10.1007/s11920-014-0506-4
18. Secretaria de Atenção à Saúde. *CADERNOS ATENÇÃO BÁSICA de SAÚDE MENTAL Número 34*.; 2013.
19. Gonçalves DA, Mari J de J, Bower P, et al. Brazilian multicentre study of common mental disorders in primary care: rates and related social and demographic factors. *Cad Saude Publica*. 2014;30(3):623-632. doi:10.1590/0102-311x00158412
20. Gerbaldo TB, Arruda AT, Horta BL. EVALUATION OF THE ORGANIZATION OF CARE IN MENTAL HEALTH IN PRIMARY HEALTH CARE IN BRAZIL De acordo com a Organização Mundial da Saúde (OMS), os transtornos men- tais são importante causa de morbidade e de mortalidade prematura , repre- sentando 12 % da .

2018:1079-1094.

21. Pimentel F. *Matriciamento Saúde Mental Em*.

22. World Health Organization. World Health Organization Mental Health Atlas, Geneva. *World Heal Organ*. 2011:1-81. doi:10.1093/bja/aes067

23. Khan KS, Coomarasamy A. A hierarchy of effective teaching and learning to acquire competence in evidenced-based medicine. *BMC Med Educ*. 2006;6:1-9. doi:10.1186/1472-6920-6-59

24. Liu G, Jack H, Piette A, et al. Mental health training for health workers in Africa: A systematic review. *The Lancet Psychiatry*. 2016;3(1):65-76. doi:10.1016/S2215-0366(15)00379-X

25. Hutchinson L. Evaluating and researching the effectiveness of educational interventions. *Br Med J*. 1999;318(7193):1267-1269. doi:10.1136/bmj.318.7193.1267

26. Weed ED. ADHD in school-aged youth: Management and special treatment considerations in the primary care setting. *Int J Psychiatry Med*. 2016;51(2):120-136. doi:10.1177/0091217416636561

Non-Plagiarism Statement

This project was written by me and in my own words, except for quotations from published and unpublished sources which are clearly indicated and acknowledged as such. I am conscious that the incorporation of material from other works or a paraphrase of such material without acknowledgement will be treated as plagiarism. The source of any picture, map or other illustration is also indicated, as is the source, published or unpublished, of any material not resulting from my own experimentation, observation or specimen-collecting.

December 10th, 2019.

Maria Helena Pereira Pires de Oliveira