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ORIGINAL PAPER

Willingness to Use Mental Health Services for Depression Among African Immigrants and White Canadian-Born People in the Province of Quebec, Canada

Tchaa Balakiyéme Boukpessi[1] · **Lonzozou Kpanake**[2] · **Jean-Pierre Gagnier**[1]

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Abstract

Studies suggest that non-Caucasian immigrants to Canada are less likely than Canadian-born people to use mental health services. To meet the mental health needs of ethnocultural minorities, insights into their help-seeking attitudes are of great concern. This study examined the willingness of African immigrants and White Canadian-born to seek care for depression from conventional mental health services. African immigrants (N = 262) and White Canadian-born people (N = 250) living in Montreal, Canada, indicated their willingness to use mental health services under different conditions varying as a function of four factors: the severity of symptoms, the waiting time for first consultation, the type of care offered in the mental health service, and whether informal sources of help were available. Seven qualitatively different positions were identified: *Never Consult* (18% of the African immigrants and 1% of the White Canadian-born people); *Hesitant* (18% of the African immigrants and 7% of the White Canadian-born people); *Depends on Waiting Time* (16% of the African immigrants); *Depends on Waiting Time and Symptoms* (22% of the African immigrants); *Depends on Symptoms* (36% of the White Canadian-born people and 6% of the African immigrants); *Willing to consult* (33% of the White Canadian-born people and 2% of the African immigrants); *Certain to Consult* (9% of the White Canadian-born people and 4% of the African immigrants), while 14% of participants in each group did not express any position. African immigrants were more likely to underuse mental health services, compared with White Canadian-born people. The above diversity of positions strongly suggests that the design and implementation of interventions to reduce disparities in African immigrants' use of mental health care must not be "one size fits all" but must be tailored to address these immigrants' differing attitudes and needs.

Keywords Mental health service utilization · Willingness · African immigrants · Canada

Introduction

Although the health service in Canada is publicly funded and available to all citizens and residents, non-Caucasian immigrants are less likely than White Canadian-born people to receive care in mental health services [1–4]. Ensuring equity in access to care and appropriate use of mental health services requires an understanding of mental health-seeking behavior among non-Caucasian immigrants in order to inform the development of equitable services [2]. Broadly speaking, two perspectives to explain the underutilization of mental health services among non-Caucasian immigrants have been provided. Some researchers suggest that this underutilization reflects a decreased need associated with the "healthy immigrant effect" [1, 5, 6]. The "healthy immigrant effect" hypothesis suggests that immigrants in Canada generally have better mental health than

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✉ Tchaa Balakiyéme Boukpessi
Tchaa.Balakiyeme.Boukpessi@uqtr.ca

Lonzozou Kpanake
lonzozou.kpanake@teluq.ca

Jean-Pierre Gagnier
Jean-Pierre.Gagnier@uqtr.ca

[1] Université du Québec à Trois-Rivières, 3351, Boulevard des Forges, Trois-Rivières, QC G8Z 4M3, Canada

[2] University of Québec - TELUQ, 5800, Rue Saint-Denis, Bureau 1105, Montréal, QC H2S 3L5, Canada

the native-born population [1, 5, 6]. Others suggest that the disparities in access to mental health services are the product of institutional and sociocultural barriers that disadvantage non-Caucasian immigrants. These barriers include a lack of cultural competence (i.e., inability of providers to effectively deliver healthcare that meets the social and cultural needs of patients) [2, 7], variations in cultural models of illness [7, 8], stigma [2, 3], perceived discrimination [2, 9], variations in service provision [7, 8], and linguistic needs [2].

To date, it is not clear whether the underuse of mental health services by non-Caucasian immigrants reflects a decreased need or is the product of institutional or sociocultural barriers. Furthermore, while previous studies have identified factors that affect the professional help-seeking attitudes of immigrants, surprisingly few attempts have been made to understand the ways in which those factors contribute to the decision to seek (or not to seek) help from professional mental health services. The findings of several studies, however, strongly suggest that the act of seeking (or not seeking) help from professional health services is hardly the consequence of single factors. Instead, it is the result of an active judgment process in which patients weigh, balance, and combine different circumstantial factors (e.g. severity of symptoms, perceived effectiveness of treatment, patient-provider relationship, waiting times) [10–13]. Understanding the attitudes of African immigrants towards the formal use of mental health services may aid efforts to optimize care and ensure appropriate use of mental health services.

The present study aimed to examine the willingness of African immigrants living in the province of Quebec to seek care for depression from formal mental health services. Their willingness was examined in different circumstances varying as a function of the severity of symptoms, the type of mental health care, the waiting time for a first consultation, and whether informal sources of care were available. As immigrant groups differ considerably in their sociocultural backgrounds and daily life experiences, it is recommended that researchers focus on specific immigrant groups rather than immigrants in general [14, 15]. The present study focused on African immigrants because they represent the second largest number of recent immigrants to Canada [16], and little attention has been paid to mental health issues among this population. To explore possible differences between African immigrants and White Canadian-born people, the responses of a sample of members of each of the two groups were compared. This comparison is based on the fact that, without data on the differences between African immigrants and White Canadian-born people, it would be difficult to plan for appropriate mental health services.

We expected, based on previous studies [7–9], that the overall willingness to use mental health services would be significantly lower among African immigrants, compared to White Canadian-born people. We also expected that, based on Thomson et al.'s [2] and Anderson et al.'s [3] findings, when judging whether or not to seek professional help, most people from each of the two groups would take into account circumstantial factors, and that the factor that mattered the most would differ. Finally, as individual differences have been found in attitudes toward utilization of mental health services [17, 18], we expected to find at least three qualitatively different positions on the willingness to use mental health services among the participants: (1) some participants would be willing to use mental health services whenever they felt the need, (2) other participants would decide whether or not to use the service based on circumstances (e.g. severity of symptoms and waiting times), and (3) still others would be absolutely reluctant to use the service, irrespective of circumstances. We expected that African immigrants would be more likely to express reluctant attitudes.

Methods

Participants

The 512 participants were either African immigrants (N = 262) or from the White Canadian-born population (N = 250) living in the province of Quebec, Canada. They were approached in public places (e.g. public parks, libraries, sidewalks) in the city of Montreal. Montreal is the most ethnically diverse city in Quebec, therefore enabling comparative studies to be conducted among different ethnocultural groups living in the same area. The researchers approached people based on their skin color and, subsequently, asked whether they were immigrants from Africa or Canadian-born. If the person met the criteria, the researchers explained the study and invited them to participate. Overall, 370 African immigrants and 410 White Canadian-born people were invited to participate. Of these, 70% and 61%, respectively, agreed to participate. Participants spoke French—the official and common language of Quebec—as their first or second language. The countries of origin of the African immigrant participants were: Cameroon (N = 56), Democratic Republic of Congo (N = 46), Côte d'Ivoire (N = 37), Guinea (N = 33), Togo (N = 28), Rwanda (N = 12), Benin (N = 12), Burkina Faso (N = 9), Congo (N = 8), Senegal (N = 5), Central African Republic (N = 5), Mali (N = 4), Burundi (N = 3), Gabon (N = 1), Madagascar (N = 1), Mauritania (N = 1), and Nigeria (N = 1). Participants were unpaid volunteers. Their demographic characteristics are shown in Table 1.

Material

The material consisted of 36 cards containing a vignette of a few lines, a question, and a response scale. The vignettes were composed of combinations of different levels of four

Table 1 Demographic characteristics of the sample

Cluster									
Characteristic	Never	Hesitant	Waiting time	Waiting time and symptoms	Symptoms	Willing	Certain	Undeter-mined	Total
Gender									
Female	29(9)	28(9)[a]	25(8)	47(15)[a]	60(19)	53(17)	26(9)	43(14)	311
Male	22(11)	36(18)[a]	17(8)	10(5)[a]	46(23)	35(17)	7(4)	28(14)	201
Age									
18–26 years	23(13)	30(18)[a]	32(19)[ab]	15(9)[a]	19(11)[ab]	21(12)[a]	4(2)[ab]	28(16)	172
27–36 years	16(10)	20(12)	9(6)[a]	31(19)[ab]	33(20)[a]	25(15)	11(7)[a]	17(11)	162
37 + years	12(7)	14(8)[a]	1(1)[b]	11(6)[b]	54(30)[b]	42(23)[a]	18(10)[b]	26(15)	178
Group									
African im	48(18)[a]	46(18)[a]	42(16)[a]	57(22)[a]	15(6)[a]	6(2)[a]	11(4)[a]	37(14)	262
Cana-born	3(1)[a]	18(7)[a]	0(0)[a]	0(0)[a]	91(36)[a]	82(33)[a]	22(9)[a]	34(14)	250
Length of stay in Canada (African im.)									
14–35 mths	21(15)	11(8)[a]	32(23)[a]	38(27)[a]	12(9)	1(1)	5(4)	18(13)	138
36 + mths	27(22)	35(28)[a]	10(8)[a]	19(15)[a]	3(3)	5(4)	6(5)	19(15)	124
Education African immigrants									
Prim. or Sec	0(0)	1(9)	0(0)	0(0)	1(9)	2(18)	7(64)	0(0)	11
College	2(17)	3(25)	1(8)	4(34)	0(0)	0(0)	1(8)	1(8)	12
University	46(19)	42(18)	41(17)	53(22)	14(6)	4(2)	3(1)	36(15)	239
Canadian-born									
Prim. or Sec	3(3)	14(14)[ab]	0(0)	0(0)	33(34)	24(24)[a]	0(0)[a]	25(25)[ab]	99
College	0(0)	3(4)[a]	0(0)	0(0)	33(47)[a]	31(44)[a]	1(2)[b]	2(3)[a]	70
University	0(0)	1(1)[b]	0(0)	0(0)	25(31)[a]	27(33)	21(26)[ab]	7(9)[b]	81
Religion									
Atheist	5(4)[a]	7(5)[ab]	2(1)[ab]	5(3)[ab]	50(35)[ab]	38(27)[ab]	19(13)[ab]	17(12)	143
Christian	40(13)[a]	47(15)[a]	22(7)[ac]	33(11)[ac]	50(16)[a]	49(16)[ac]	14(5)[a]	51(17)[a]	306
Muslim	6(9)	10(16)[b]	18(29)[bc]	19(30)[bc]	6(9)[b]	1(2)[bc]	0(0)[b]	3(5)[a]	63
Total	51	64	42	57	106	88	33	71	512

Composition of the clusters

The figures in parentheses are percentages

Figures with the same exponent in each column are significantly different, $p < .05$. For example, in the second column, a = significantly higher number of African immigrants in the *Never Consult* cluster than Canadian-born people

Prim. primary school education, *Sec.* secondary school education, *African im.* African immigrants, *Cana-born.* Canadian-born, *mths.* months

factors that influence help-seeking behavior, as suggested by previous studies [13, 19–23]:

(a) the severity of depressive symptoms according to the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders (5th ed.):

- severe,
- moderate, or
- mild

(b) the type of care offered in the mental health service:

- medication-focused care, or
- comprehensive care approach (healthcare providers care for the patient's sociocultural and spiritual needs, not just the medical ones)

(c) the waiting time for a first consultation in formal mental health services:

- 2 months,
- 4 months, or
- 6 months

(d) whether informal sources of care (e.g. cohesive families, friends, and religious counsellors) are available:

- available, or
- not available

The question under each vignette was, "If you were in [patient's name]'s situation, how likely would you be to consult this mental health service?" The response scale was an 11-point scale with anchors of "Certainly NO" (0) and "Certainly YES" (10). The material was in French. The cards were arranged randomly and in a different order for each participant. Two examples of scenarios are given in the Online Supplementary Appendix A, and the whole set of scenarios is shown in the Online Supplementary Table S1.

We checked the ecological validity of the vignettes in advance by asking six mental health professionals (2 psychiatrists, 2 psychologists, and 2 social workers) in Montreal to read each vignette and indicate whether it depicted a "possible" situation. From all six viewpoints, each scenario seemed possible.

Procedure

The researchers arranged for a quiet place to administer the experiment with each participant. The site of the study was either a vacant classroom in a local educational institution or in the participant's private home, depending on which was more convenient for the participant. Testing was strictly individual. As recommended by Anderson [24], the session had two phases. In the so-called familiarisation phase, the experimenter explained what was expected of the participant: that they were to read stories depicting a person suffering from symptoms of depression and they were to indicate, in each story, their willingness to seek care from a formal mental health service if they were in this situation. Next, the participant was presented with 18 stories taken randomly from the complete set. The participant read each story out loud, was reminded by the experimenter of the items of information in the story, and then provided ratings on their willingness to consult. After completing the 18 ratings, the participant was allowed to look back at his or her responses and compare and change them. The purpose of the familiarization phase was to make the participant as familiar as possible with the test material and the task [24]. In the experimental phase, each participant gave ratings for the whole 36 stories, working at his or her own pace, but not allowed to look back at and change previous responses. The participants took 30–45 min to complete the ratings. The experimental phase went quickly because they were already familiar with the task and the material.

Ethics approval for the study was obtained from the Institutional Review Board of the Université du Québec à Trois-Rivières. Full anonymity was provided to all participants.

Statistical Analyses

For each of the 36 scenarios, each mark along the response scale was converted into a numerical rating ranging from 0 to 10. First, an overall ANOVA was conducted on the raw data with a design of Group × Type of Care × Informal Care × Waiting Time × Symptoms, 2 × 2 × 2 × 3 × 3. Second, as we detected strong individual differences in responses during data gathering (as expected) a cluster analysis was performed. As recommended by Hofmans and Mullet [25], the K-means method was used. An eight-cluster solution was retained because it was the one that produced the most interpretable findings. Third, an overall ANOVA was conducted on the raw data with a design of Cluster × Type of Care × Informal Care × Waiting Time × Symptoms, 8 × 2 × 2 × 3 × 3. As the cluster effect was significant, and the two-way interactions involving the clusters factor were significant, eight separate ANOVAs were conducted on the data of each cluster, using a Type of Care × Informal Care × Waiting Time × Symptoms, 2 × 2 × 3 × 3, design. Owing to the multiple comparisons performed, the significance threshold was set at 0.001. Finally, we performed probability difference tests to examine the effects of demographic characteristics.

Results

Influence of Severity of Symptoms, Type of Care, Waiting Time and Availability of Informal Sources of Care on Participants' Willingness to Use Mental Health Services

The main results of the overall ANOVA are shown in Table 2. Participants' ratings were much higher (a) when symptoms were severe ($M = 6.61$) than when they were mild ($M = 3.87$), and (b) when waiting times for a first consultation were short ($M = 6.21$) rather than long ($M = 4.35$). The ratings were slightly higher (c) when the mental health service followed a comprehensive care approach ($M = 5.52$) than when it was medication-focused ($M = 5.07$), and (d) when informal sources of care were unavailable ($M = 5.44$) compared to when they were available ($M = 5.15$). As also shown in Table 2, the impact of waiting times for a first consultation was stronger among African immigrants (5.09–2.49 = 2.60) than among White Canadian-born people (7.32–6.20 = 1.12), while the impact of the severity of symptoms was stronger among White Canadian-born people (8.54–4.96 = 3.58) than among African immigrants (4.66–2.78 = 1.88). In addition, as showed in Fig. 1, the overall ratings were much higher among the White Canadian-born group ($M = 6.85$) compared to the African immigrant group ($M = 3.74$).

Table 2 Main results of the overall ANOVA

Cluster and factor	*df*	*MS*	*F*	*p*	η^2_p
Overall analysis					
Group (G)	1	44 106.67	350.07	.001	.41
Type of care (C)	1	966.55	108.29	.001	.18
Informal care (I)	1	380.70	54.42	.001	.10
Waiting time (W)	2	5 286.33	285.76	.001	.36
Symptoms (S)	2	11 533.09	515.26	.001	.50
G×C	1	68.68	7.69	.006	.01
G×I	1	94.60	13.52	.001	.03
G×W	2	911.19	49.26	.001	.09
G×S	2	1 140.72	50.96	.001	.09
I×S	2	13.60	10.17	.001	.02
W×S	4	32.75	13.34	.001	.03
G×I× S	2	105.24	78.75	.001	.13
G×W× S	4	198.05	80.66	.001	.14
Cluster never consult					
Type of care	1	20.27	6.25	.02	.11
Informal care	1	3.12	0.63	.43	.01
Waiting time	2	46.14	11.35	.001	.19
Symptoms	2	1.65	0.29	.75	.01
Cluster hesitant					
Type of care	1	326.25	12.25	.001	.16
Informal care	1	169.54	13.26	.001	.17
Waiting time	2	277.71	39.23	.001	.38
Symptoms	2	799.50	40.88	.001	.39
Cluster waiting time					
Type of care	1	4.89	0.85	.36	.02
Informal care	1	1.06	0.56	.45	.01
Waiting time	2	9 491.62	702.84	.001	.94
Symptoms	2	2.59	1.24	.29	.03
Cluster waiting time and symptoms					
Type of care (C)	1	824.85	224.65	.001	.80
Informal care (I)	1	386.88	69.43	.001	.55
Waiting time (W)	2	2 375.14	436.41	.001	.89
Symptoms (S)	2	5 982.39	1 153.77	.001	.95
C×W	2	59.95	24.50	.001	.30
I×W	2	78.73	32.06	.001	.36
C×S	2	121.74	66.79	.001	.54
I×S	2	61.26	43.07	.001	.43
W× S	4	454.87	164.34	.001	.75
C×W× S	4	35.49	22.73	.001	.29
Cluster depends on symptoms					
Type of care (C)	1	74.45	12.21	.001	.10
Informal care (I)	1	75.01	15.97	.001	.13
Waiting time (W)	2	763.28	311.61	.001	.75
Symptoms (S)	2	10 008.14	907.74	.001	.90
C× W	2	137.77	50.94	.001	.33
I× S	2	80.92	69.24	.001	.40
W× S	4	130.14	57.78	.001	.35
C×I× S	2	94.55	72.21	.001	.41
C×W× S	4	70.37	44.48	.001	.30
Cluster willing to consult					
Type of care (C)	1	178.64	86.00	.001	.50
Informal care (I)	1	16.60	11.48	.01	.12
Waiting time (W)	2	310.95	105.70	.001	.55
Symptoms (S)	2	1 994.59	374.25	.001	.81
C× W	2	26.32	21.85	.001	.20
I× W	2	28.21	31.96	.001	.27
I× S	2	20.27	27.16	.001	.24
W× S	4	17.26	22.94	.001	.21
Cluster certain to consult					
Type of care	1	0.01	0.01	.94	.00
Informal care	1	2.02	0.96	.33	.03
Waiting time	2	1.16	1.32	.27	.04
Symptoms	2	4.35	2.61	.08	.08
Cluster undetermined					
Type of care	1	106.61	8.17	.01	.10
Informal care	1	39.56	2.26	.14	.03
Waiting time	2	103.70	24.00	.00	.26
Symptoms	2	214.73	11.61	.00	.14

Main results of the ANOVAs conducted at the cluster level

Participants' Positions on Willingness Use Mental Health Services

Figure 2 shows the patterns of data that correspond to five of the eight clusters. Table 1 shows the distribution of participants in each cluster. The results of the corresponding ANOVAs are shown in Table 2.

The first cluster ($N=51$, 10% of the sample, not shown) was the expected cluster of people who were always reluctant to seek help from mental health services. All ratings were very low ($M=0.95$). This cluster was called *Never Consult*. Ratings were slightly higher when waiting times were short ($M=1.25$) than when they were long ($M=0.70$). African immigrants (18%) and Christians (13%) were significantly more likely to belong to this cluster than White Canadian-born people (1%) and atheists (4%).

The second cluster ($N=64$, 13%) was called *Hesitant* because the ratings, although always higher than those in the previous cluster, were nevertheless low ($M=3.24$). Ratings were higher (a) when symptoms were severe ($M=4.25$) than when they were mild ($M=2.21$), and (b) when waiting times were short ($M=3.89$) rather than long ($M=2.71$). Ratings were slightly higher (c) when the service followed a comprehensive care approach ($M=3.62$) than when it was medication-focused ($M=2.87$), and (d) when informal sources of help were unavailable ($M=3.51$) compared to when they were available ($M=2.97$). Males (18%), younger participants (18%), African immigrants residing in Canada

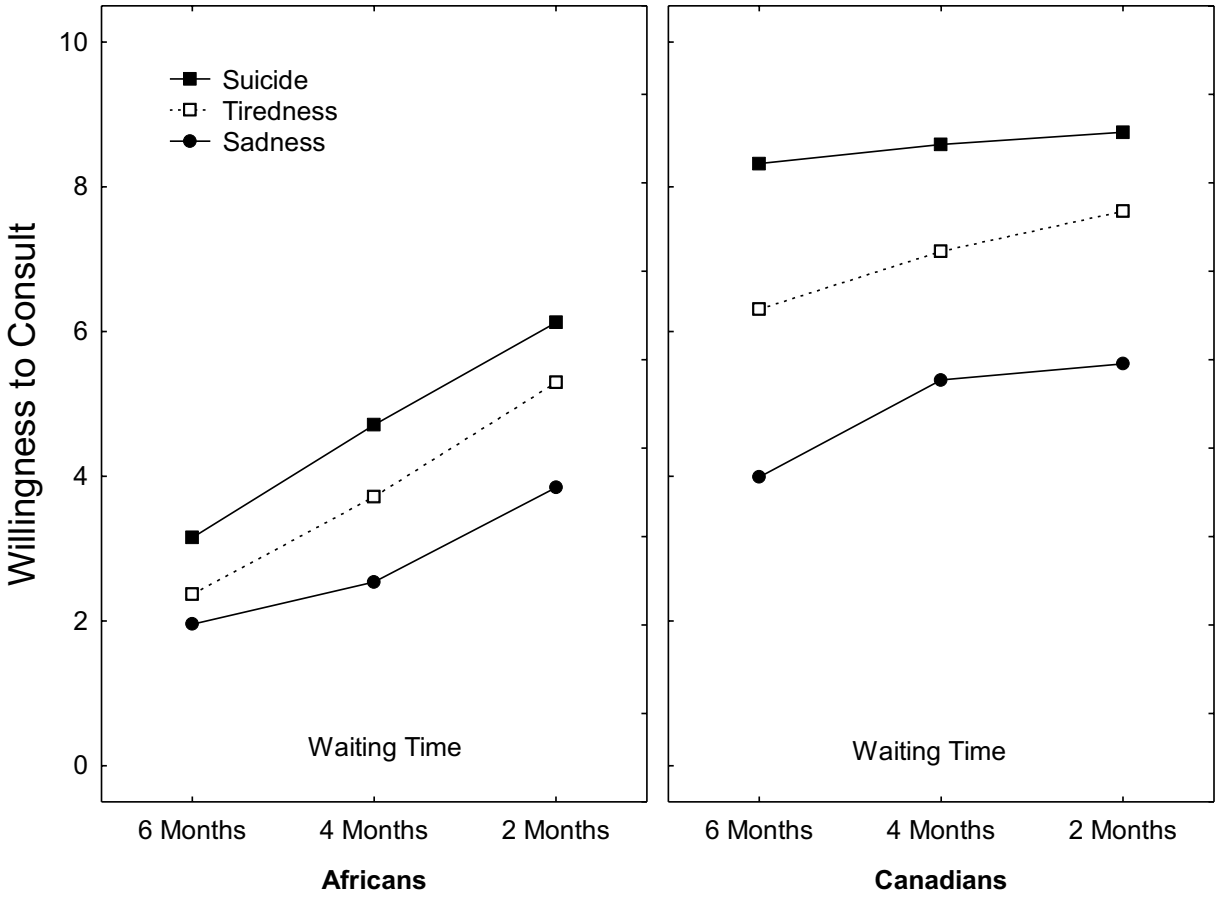

Fig. 1 Patterns of results showing the relationship between severity of symptoms and waiting time among African immigrants and White Canadian-born people

for more than 3 years (28%), less educated White Canadian-born people (14%), and religious people (15%) were significantly more likely to belong to this cluster than females (9%), older participants (8%), African immigrants residing in Canada for less than 3 years (8%), more educated White Canadian-born people (1%), and atheists (5%).

The third cluster ($N=42$, 8%) was called *Waiting Time* because ratings were considerably higher when the waiting time was short ($M=8.94$) than when it was long ($M=0.55$). Younger participants (19%), African immigrants in general (16%), African immigrants residing in Canada for less than 3 years (23%), and Muslims (29%) were significantly more likely to belong to this cluster than older participants (1%), White Canadian-born people (0%), African immigrants residing in Canada for more than 3 years (8%), atheists (1%), and Christians (7%).

The fourth cluster ($N=57$, 11%) was called *Waiting Time and Symptoms* because these two factors explained most of the variance and interacted strongly. Ratings were considerably higher when symptoms were severe and the waiting time was short ($M=8.09$) than when symptoms were mild and the waiting time was long ($M=0.83$). This interaction was further accentuated when the service followed a comprehensive care approach than when it was medication-focused. Females (15%), participants aged 27–36 (19%), African immigrants (22%), African immigrants residing in Canada for less than 3 years (27%), and Muslims (30%) were significantly more likely to belong to this cluster than males (5%), older participants (6%), White Canadian-born people (0%), African immigrants residing in Canada for more than 3 years (15%), atheists (3%), and Christians (11%).

The fifth cluster ($N=106$, 21%) was called *Symptoms* because the ratings were considerably higher when symptoms were severe ($M=9.12$) than when they were mild ($M=3.54$). In addition, ratings were higher when the waiting time was short ($M=7.15$) rather than when it was long ($M=5.67$). Further, the impact of symptoms was stronger when the waiting time was long (8.87–2.05 = 6.82) rather than when it was short (9.34–4.48 = 4.86). Older participants (30%), White Canadian-born people in general (36%), White Canadian-born people with a college degree (47%), and atheists (35%) were significantly more likely

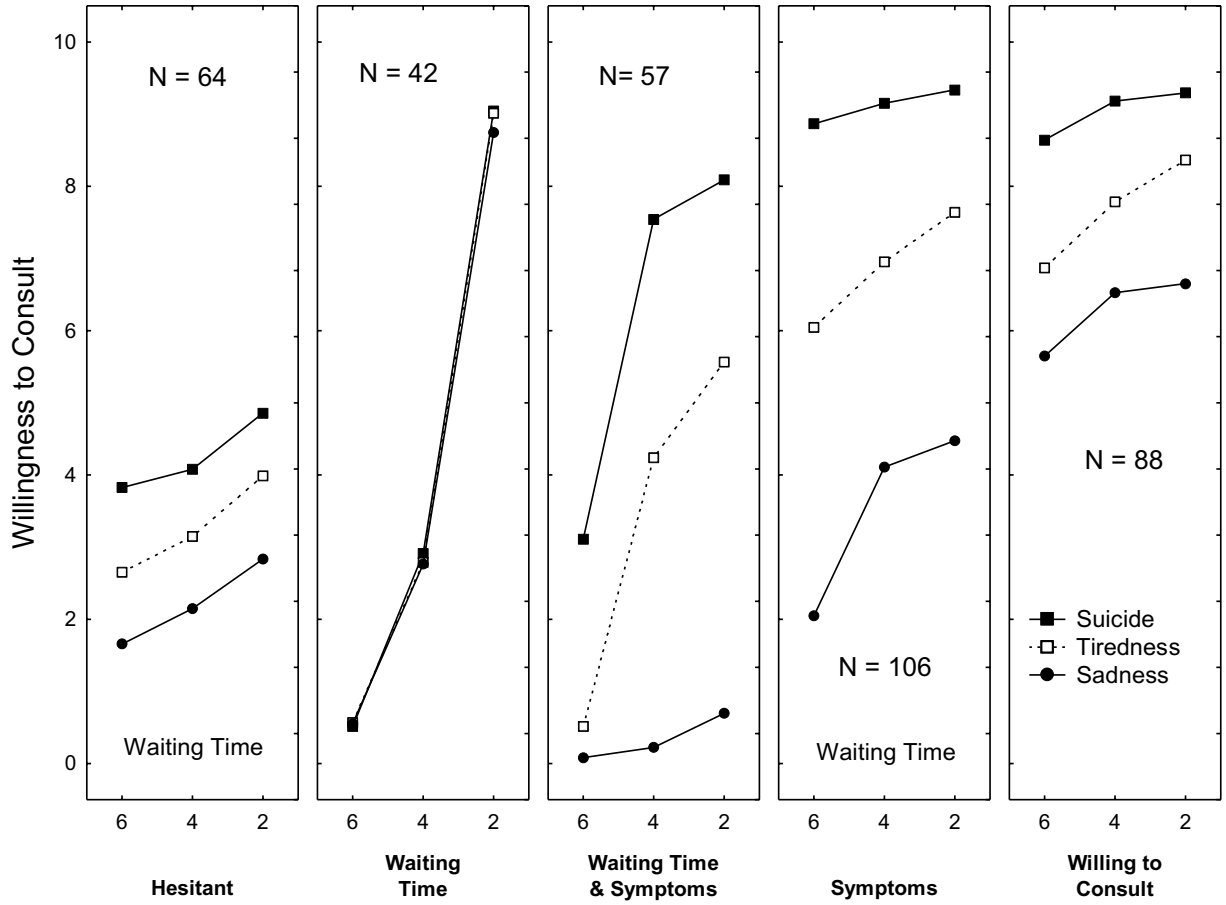

Fig. 2 Patterns of results corresponding to the five clusters: *Hesitant*, *Waiting Time*, *Waiting Time and Symptoms*, *Symptoms*, *Willing to Consult*. In each panel, **a** the level of willingness to consult is on the y-axis, **b** the three levels of waiting times are on the x-axis, and **c** the three curves correspond to the three levels of symptoms

to belong to this cluster than younger participants (11%), African immigrants (6%), White Canadian-born people with other degrees (33%), and religious people (15%).

The sixth cluster ($N = 88$, 17%) was called *Willing to Consult* because the ratings were always higher than the middle of the response scale ($M = 7.66$). It showed a reverse pattern of data to the *Hesitant* cluster. Ratings were higher (a) when symptoms were severe ($M = 9.04$) than when they were mild ($M = 6.27$), and (b) when the waiting time was short ($M = 8.10$) rather than long ($M = 7.10$). Ratings were slightly higher when the service followed a comprehensive care approach ($M = 7.90$) than when it was medication-focused ($M = 7.42$). Older participants (23%), White Canadian-born people in general (33%), White Canadian-born people with a college degree (43%), and atheists (27%) were significantly more likely to belong to this cluster than younger participants (12%), African immigrants (2%), White Canadian-born people with a secondary school education (24%), and religious people (15%).

The seventh cluster ($N = 33$, 6%, not shown) was the expected cluster of people who were always willing to seek help from mental health services. All ratings were high ($M = 9.87$). This cluster was called *Certain to consult.* Older participants (10%), White Canadian-born people in general (9%), White Canadian-born people with a college degree (26%), and atheists (13%) were significantly more likely to belong to this cluster than younger participants (2%), African immigrants (4%), White Canadian-born people without a college degree (1%), and religious people (4%).

Finally, the eighth cluster ($N = 71$, 14%, not shown) was called *Undetermined* because all ratings were always close to the middle of the response scale ($M = 5.45$). White Canadian-born people with primary education (25%) and Christians (15%) were significantly more likely to belong to this cluster than more educated White Canadian-born people (6%) and Muslims (5%).

Discussion

This is the first study to compare willingness to use mental health services between African immigrants in Canada and non-immigrants. As expected, the level of overall willingness to seek care from mental health services for symptoms of depression was significantly lower among African immigrants, compared to White Canadian-born people. This finding is consistent with that of Kirmayer et al. [4], which suggested that Vietnamese and Filipino immigrants in Canada were less likely than Canadian-born people to make use of mental health services. As the methodology used in this study enabled the researchers to present participants with similar mental health needs from both groups, this finding strongly suggests that the underuse of mental health services among African immigrants cannot be explained by less need.

Also, as expected, each of the circumstantial factors contained in the vignettes contributed independently to the use of mental health services by African immigrants. They were more willing to use mental health services when they perceived symptoms to be severe, the waiting time was short, informal sources of help were unavailable, and when the care provided was based on a comprehensive approach, rather than when the symptoms were perceived as mild, the waiting time was long, informal sources of help were available, and the care provided was medication-focused. The most important factors in the African immigrants' decision to use (or not to use) the service were the severity of symptoms and the waiting time for a first consultation. These findings were consistent with Memon et al.'s [26] observations among Black communities in England. The high importance of the severity of symptoms found in the present study can be explained, as suggested by previous studies, by stigma associated with mental illness among African communities [21, 26, 27]. That is, the use of mental health services is perceived as shameful; as such, people with mental illness might only be willing to consult professionals when symptoms are very severe. Furthermore, because severe depressive symptoms are somatic in nature, individuals might easily perceive them as somatic rather than psychiatric in origin, and therefore be more willing to consult. The important role of waiting times in participants' decision to consult may be explained by a perception that lengthy waiting times for services could have a negative impact on the outcome by allowing depressive symptoms to escalate in severity. Perceived lengthy waiting times for formal services might be particularly frustrating for many African immigrants in contexts where African traditional healers and religious healers—whose approach to care is more readily understood and accepted by many African immigrants—are available and easily accessible [7, 8, 28].

Finally, also as expected, we found qualitatively different positions on the willingness to use mental health services, consistent with previous studies suggesting individual differences in help-seeking behavior [17, 18]. One group (22%) of participants—4 in 5 of whom were African immigrants—were unwilling to seek care in formal mental health services, even when symptoms were severe, waiting times were short, informal sources of help were unavailable, and the care provided was based on a comprehensive approach. Another group (21%) of participants—only 1 in 7 of whom were African immigrants—were, in contrast with the previous group, always willing to use mental health services whenever they felt the need. A third group of participants (40%) based their decision to use (or not to use) services on circumstances, whether primarily on severity of symptoms (21%), on waiting times (8%), or a combination of severity of symptoms and waiting times (8%). These nuanced positions were almost group-exclusive, with only African immigrants in the *Waiting Time* and *Severity of Symptoms and Waiting Time* clusters, while the overwhelming majority (86%) of members of the *Severity of Symptoms* cluster was White Canadian-born people. The reluctance to use formal mental health services found among the African immigrant group echoed the findings of Fenta et al. [8], which indicated that Ethiopian immigrants in Canada were more likely to consult traditional healers than healthcare professionals for mental health problems. This attitude may be explained by an understanding of mental illness in African cultural contexts that differs from that of the mainstream model [7, 23, 28], as well as stigma [4, 26].

This study has limitation. First, it used a convenience sample of only moderate size. Any generalization of the findings must, therefore, be done with care. Second, it used vignettes, not real patients suffering from depression. The use of vignettes, however, is useful in that it permits statistical analyses to reveal how people weigh and combine separate factors. Third, the researchers did not ask the respondents further questions to elucidate the reasons underlying their positions. Future follow-up studies using qualitative methods are needed to understand the respondents' reasoning.

Despite these limitations, this study is the first to provide findings from a direct comparison between African immigrants in Canada and White Canadian-born people as regards to their willingness to use mental health services. Differences and similarities found are hypothesis-generating and provide insights about the design and implementation of tailored interventions that could increase utilization of mental health services among African immigrants. The diversity of attitudes found strongly suggests that those interventions must not be "one size fits all" but must be tailored in design and implementation to address patients' differing attitudes and needs.

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