A Population Based Analysis of Subclinical Psychosis and Help-Seeking Behavior

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Clinically defined psychosis is recognizable and distinguishable from nonclinical or subclinical psychosis by virtue of its clinical relevance (ie, its associated distress and its need for care and/or treatment). According to the continuum hypothesis, subclinical psychosis is merely quantitatively different from more extreme phenotypic expressions and as such should also be indicative of distress and help-seeking behavior but to a lesser extent. Using data from the Adult Psychiatric Morbidity Survey, the current study focused on self-reported psychosis and help-seeking experiences in a general population sample free from clinically defined psychosis ($N = 7266$). After statistically controlling for the effects of a series of potential help-seeking correlates the findings showed that subclinical psychosis symptom experience was significantly associated with various forms of help-seeking behavior. Individuals who reported subclinical experiences of thought control, paranoia, and strange experiences were on average 2 times more likely to attend their general practitioner for emotional problems compared with those individuals who reported no psychosis. Individuals who reported subclinical experiences of paranoia were 3 times more likely to be in receipt of counseling/therapy compared with those with no experience of paranoia. Multiple subclinical psychotic experiences also predicted elevated help-seeking behavior. These findings may have a positive impact on the detection of individuals who are at increased risk of psychological distress and aid in the design and implementation of more effective treatments at both clinical and subclinical levels.

Key words: psychosis continuum/phenotype/prodrome/treatment/epidemiology

Introduction

Several authors have proposed a conceptualization of the psychosis phenotype as a continuous distribution of psychosis-like symptoms.[1–7] This conceptualization implies that psychosis, rather than constituting a distinct dichotomous disease entity, instead, exists along a continuum of symptom severity and that clinically defined psychosis merely represents an extremity of a skewed distribution. This is substantiated by meta-analysis findings indicating that the dimensions of subclinical psychosis closely resemble those that have been identified in psychotic disorder and that there is etiological continuity (with regards to demographic, genetic, and nongenetic risk factors) between subclinical and clinical psychosis phenotypes.[8] While the importance of this conceptualization in relation to diagnosis, etiology, prevalence, and incidence has been notable, many to date have focused on the continuum's potential to identify individuals who are at heightened risk of developing a psychotic disorder.[9]

Research evidence has suggested that while subclinical psychosis is prevalent in the general population, it is also mostly self-limiting (ie, it does not confer a liability to clinical distress/disorder) and results in a positive outcome (ie, is transient and undamaging).[10,11] Several studies, however, have indicated that a small proportion of individuals experiencing subclinical psychosis go on to develop a clinical psychotic disorder. For example, Chapman et al. evaluated the predictive validity of several indicators of psychosis proneness in a 10-year longitudinal study.[12] Individuals who initially scored highly on measures of perceptual aberration and magical ideation exceeded control subjects on outcome measures of psychoses, schizotypal symptoms, and psychotic-like experiences at follow-up. Also, Poulton et al.[13] conducted a 16-year prospective investigation of population-based psychosis in Dunedin, New Zealand. Children who had reported severe psychotic experiences at age 11 were 16 times more likely to have developed schizophreniform disorder at age 26 compared with those who had not reported psychotic experiences in childhood (ie, 25% of children who reported severe psychotic experiences at age 11 developed schizophreniform disorder over the 16-year follow-up period). van Os et al. followed up incident cases of psychotic experience over 3 years in a Dutch

population–based sample. Individuals who presented with symptoms deemed clinically nonrelevant by clinicians before follow-up were 25 times more likely to develop clinician-assessed psychotic disorder at follow-up compared with individuals who did not report psychotic experiences. Moreover, individuals who presented with symptoms deemed clinically relevant before follow-up were 50 times more likely to develop clinician-assessed psychosis when reassessed.[14] Finally, Hanssen et al. followed up incident cases of psychotic experiences over 2 years specifically to detect transitions to psychotic disorder. The 2-year transition rate to psychotic disorder was 8%, ie, individuals who reported psychotic experiences at the beginning of the study were 60 times more likely to have graduated to clinically defined psychosis compared with those individuals who had no experience of psychosis. This probability rose to 21% for individuals who reported multiple psychotic experiences and to 15% for individuals who also experienced a significant lowering of mood.[10] It must be noted, however, that conclusions based on studies assessing the predictive validity of subclinical psychosis within the general population are limited primarily due to the diversity of measures and limitations of methods employed to identify symptoms. Self-rating scales, eg, may be insufficient because they rely entirely on an individuals' ability to accurately report on their experience(s), and reliable reports may be questionable at times.[15] Furthermore, not all symptoms specified in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*, or *International Classification of Diseases, Tenth Revision* (ICD-10) for a psychosis-related diagnosis are always included within selected measures and as such do not facilitate a comprehensive investigation of the psychosis phenotype in its entirety.

These findings do, however, emphasize the potential of a psychosis continuum framework to (1) recognize variation in the degree of severity of psychosis-like experiences, (2) recognize the possibility that individuals may exist (temporarily or long term) on a fixed position along this continuum, and (3) account for the possible trajectory of psychosis from nonclinical to clinical relevance within the general population. van Os posited that "a distinction can be usefully made between true subclinical psychotic experiences (prevalence around 8%) and subclinical psychotic symptoms, which are associated with a degree of distress and help-seeking behavior but do not necessarily amount to clinical psychotic disorder (prevalence around 4%)"[8] (p. 184). If these estimates are accurate, then it would certainly seem to support a continuum hypothesis and, in turn, offer a valuable opportunity to identify not only subclinical individuals but also those subclinical individuals who may be "at risk" of transition to clinically defined psychosis.

In this study, we sought to examine the degree of help-seeking behavior engaged in by those individuals who report psychotic experiences but who do not meet the clinical criteria for psychotic disorder. Using a population-based sample, a series of hypotheses was tested. First, it was predicted that individuals who experienced subclinical psychotic symptoms would be significantly more likely to access general practitioner (GP) or counseling/therapist support compared with individuals who did not experience subclinical psychosis. Second, it was predicted that the probability of help-seeking would increase as a function of multiple subclinical psychotic experiences. Finally, it was also predicted that these associations would be statistically significant after controlling for a range of demographic variables, competing clinical variables, and help-seeking correlates.

Method

Sample

The data set for the current study was from the Adult Psychiatric Morbidity Survey (APMS) conducted in England in 2007. This has been the third survey of psychiatric morbidity conducted in the UK, and the main aim of the survey was to estimate prevalence and correlates of mental health problems among adults aged 16 years and over living in private households throughout England. The sample for the APMS was designed to be representative of the population living in private households in England. Using the small users postcode address file, the National Centre for Social Research (NatCen) adopted a multistage stratified probability sampling design. One adult aged 16 years or over was selected for interview within each household. The survey consisted of a phase 1 and a phase 2 (clinical) interview. At phase 1, 57% of those eligible agreed to take part in an interview. The probability of selection for a phase 2 assessment was calculated as the greatest of the specific probabilities of 4 disorders: psychosis, Asperger syndrome, borderline personality disorder, and antisocial personality disorder. The probabilities were based on respondents' responses to screening questions in the phase 1 interview. From the first phase interview, 849 respondents were selected for phase 2 interview, and phase 2 interviews were conducted with 630 of these (74%). The mean age of the sample was 51.12 (SD = 18.59) years. Interviews were successfully conducted with 7403 adults (3197 males and 4206 females). Details of the survey methods are available.[16] The current study was specifically designed to investigate subclinical psychosis; therefore, those individuals who were diagnosed with a psychotic disorder were omitted from the analysis (the overall weighted prevalence of psychosis in the APMS was 0.4% [N = 29]). The sample size was further reduced to N = 7266 after listwise deletion of missing data.

Measures

Psychotic Symptoms. In the initial interview of the survey, the Psychosis Screening Questionnaire (PSQ[17]) was administered to assess psychotic symptoms within the

past year. The PSQ consisted of 5 main questions inquiring about mania, thought insertion, paranoia, strange experiences, and hallucinations (P1 to P5), their subsidiary questions (a and b), and sections to record verbatim descriptions of the symptoms described. The subsidiary questions and verbatim descriptions helped to determine whether the experiences endorsed by the sample were likely to reflect true psychotic symptoms. For example, the first PSQ item that assessed mania was comprised of a main question (probe) "Over the past year, have there been times when you felt very happy indeed without a break for days on end?" and 2 subsidiary questions (a) "Was there an obvious reason for this happiness?" and (b) "Did people around you think it was strange?". For this particular item, the second subsidiary question (b) distinguished between "usual" and "common" experiences of happiness (captured within the main and first subsidiary questions) and experiences of happiness that may have been "unusual" and "uncommon" and potentially clinically relevant. Therefore, for the purposes of the current study, analysis was based solely on selected subsidiary questions of the first 4 PSQ items to attempt to capture clinically relevant psychotic experiences within the sample. (The main hallucination item [item 5] that inquired about auditory and visual experiences was deemed most suitable as the subsidiary question for this item (5a) focused on auditory hallucinations alone.) Responses to these questions were coded 1 = item endorsed or 0 = item rejected. An "unsure" response to any of the 5 symptom items was re-coded and treated as missing data. The 5 main and subsidiary questions of the PSQ were (analysis relevant questions in bold) as follows:

1. Over the past year, have there been times when you felt very happy indeed without a break for days on end?
1a. Was there an obvious reason for this?
1b. Did people around you think it was strange?
2. Over the past year, have you ever felt that your thoughts were directly interfered with or controlled by some outside force or person?
2a. Did it come about in a way that many people would find hard to believe, for instance, through telepathy?
3. Over the past year, have there been times when you felt that people were against you?
3a. Have there been times when you felt that people were deliberately acting to harm you or your interests?
3b. Have there been times when you felt that a group of people was plotting to cause you serious harm or injury?
4. Over the past year, have there been times when you felt that something strange was going on?
4a. Was it so strange that other people would find it very hard to believe?

5. **Over the past year, have there been times when you heard or saw things that other people could not?**
5a. Did you at any time hear voices saying quite a few words or sentences when there was no one around that might account for it?

Service Use. A key feature of the APMS that was central to the current study was the assessment of health service use. The primary health consultation interests of the survey were those regarding mental and emotional problems. Participants were asked about their GP attendance in the 12 months preceding interview. Three service use questions were relevant to the current study:

1. In the past 12 months, have you spoken to a GP or family doctor on your own behalf, either in person or on the telephone about a physical illness or complaint?
2. In the past 12 months, have you spoken to a GP or family doctor on your own behalf, either in person or on the telephone about being anxious or depressed or about a mental, nervous, or emotional problem?
3. Are you currently having any counseling or therapy for a mental, nervous, or emotional problem, eg, at home, at a doctor's surgery, at a health center, hospital, or clinic?

"Talking to a doctor" meant seeing him/her (at home, surgery, health center etc.) or speaking to him/her on the telephone. This did not include social conversations with a friend/relative who happened to be a doctor, but it did include formal discussions with the informant's doctor. The section on counseling and therapy was concerned with nondrug treatments for mental, nervous, or emotional problems. These included psychotherapy or anything else the informant considered to be counseling or therapy. A prompt card listed a range of therapies, which attempted to ensure that respondents understood the types of treatment to include. The therapies listed were as follows:

1. Psychotherapy, psychoanalysis, and individual or group therapy
2. Behavior or cognitive therapy
3. Art, music, or drama therapy
4. Social skills training
5. Marital or family therapy
6. Sex therapy
7. Counseling

Analytical Strategy and Covariate Selection. A range of background variables anticipated to impact on service use were re-coded and controlled for in the analysis. These variables were indicative of 2 main sources of

Table 1. Prevalence Estimates of Subclinical Psychosis and Help-Seeking Behavior

	Male, n (%)	Female, n (%)	Total, n (%)	Male/Female, χ^2 (df) P
PSQ items				
Mania	19 (0.6)	21 (0.51)	40 (0.55)	0.27 (1) .36
Thought control	31 (0.98)	31 (0.75)	62 (0.85)	1.09 (1) .18
Paranoia	61 (1.93)	48 (1.17)	109 (1.5)	**7.01 (1) .01**
Strange experiences	99 (3.13)	105 (2.56)	204 (2.8)	2.22 (1) .08
Hallucinations	122 (3.86)	157 (3.82)	279 (3.84)	0.01 (1) .49
Help seeking				
GP-emotional	239 (7.57)	614 (14.95)	853 (11.74)	**94.02 (1) .00**
GP-physical	1931 (61.13)	2737 (66.64)	4668 (64.24)	**23.62 (1) .00**
Counseling/therapy	63 (1.99)	111 (2.70)	174 (2.39)	**3.83 (1) .03**

Note: GP, General Practitioner; PSQ, Psychosis Screening Questionnaire; male sample (N = 3159); female sample (N = 4107); total sample (N = 7266); Significant χ^2 in bold.

influence, namely (1) external constraints on help-seeking behavior, such as, ethnic minority status, lack of educational achievement, communication difficulties (language problems/barriers), unemployment, and substance dependence and (2) mental state factors such as poor general health perception and presence of neurotic disorder. The external constraint variables adjusted for in the analyses included:

1. *Ethnicity:* Ethnic background data were re-coded to form a dichotomous variable, which identified respondents as being of white ethnic origin (1) or of non–white ethnic origin (0).
2. *Education:* A variable assessing educational achievement in the survey captured qualifications ranging from no qualifications to degree level and above. This variable was re-coded into a dichotomous variable, which identified respondents as either having attained an educational qualification (1) or not (0).
3. *Language:* Participants were asked if English was their first language. This variable subsequently constituted a dichotomous variable, which identified respondents as either native English speakers (1) or non–native English speakers (0).
4. *Employment:* Participants were asked if they were in paid employment at the time of interview. This variable subsequently constituted a dichotomous variable, which identified respondents as either employed (1) or unemployed (0) at the time of interview.
5. *Substance dependence:* Dependence on specified drugs in the APMS was measured using questions based on the Diagnostic Interview Schedule. Use of a drug and the presence of 1 of 5 symptoms of dependence in the past year were used to indicate drug dependence. The variable used in the current analyses was dichotomous and identified respondents as either substance dependent (1) or not (0).

Some of these external constraint variables were re-coded into binary variables for ease of interpretation

and to avoid an unnecessarily complex statistical model. The mental state factor variables adjusted for were as follows:

1. *Common mental disorders:* The Clinical Interview Schedule Revised (CIS-R) was used to produce specific ICD-10 diagnoses of neurotic disorder. In this study, we selected a CIS-R variable that identified the presence of any neurotic disorder. This variable was coded 1 = present or 0 = absent.
2. *Perceived health status*: To assess general health and well-being within the sample, NatCen utilized the short-form 12-item health survey (SF-12[18]). The SF-12 inquires about how well respondents are generally feeling and the extent to which their activities are limited by their physical and emotional health.

Results

Details of male and female experiences of subclinical psychosis and their engagement with GP and counseling/therapy services are presented in table 1. There were no sex differences identified in relation to experiences of subclinical mania, thought control, strange experiences, or hallucinations. Males, however, were significantly more likely to experience subclinical paranoia than females ($\chi^2 = 7.01$, df = 1, P = .01). In relation to help-seeking, females were significantly more likely to attend their GP for both emotional problems ($\chi^2 = 94.02$, df = 1, P = .00) and physical problems ($\chi^2 = 23.62$, df = 1, P = .00) and were also more likely to seek counseling/therapy ($\chi^2 = 3.83$, df = 1, P = .03).

Cross-tabulations between the subclinical psychosis variables and help-seeking variables are presented in table 2. The χ^2 tests showed that subclinical mania was significantly related to GP attendance for emotional problems only, while thought control was significantly related to each of the help-seeking variables. Subclinical paranoia, strange experiences, and hallucinations were

Table 2. Associations Between Help-Seeking Behavior Variables and Subclinical Psychosis Symptoms

PSQ Items	GP-Emotional			GP-Physical			Counseling/Therapy		
	Yes, n (%)	No, n (%)	χ^2 (P)[a]	Yes, n (%)	No, n (%)	χ^2 (P)[a]	Yes, n (%)	No, n (%)	χ^2 (P)[a]
Mania	9 (1.10)	31 (0.50)	**4.50 (.04)**	21 (0.50)	19 (0.70)	2.43 (.08)	1 (0.60)	39 (0.60)	0.002 (.62)
Thought control	24 (2.80)	38 (0.60)	**44.31 (.00)**	51 (1.10)	11 (0.40)	**8.85 (.00)**	6 (3.50)	56 (0.80)	**14.54 (.00)**
Paranoia	49 (5.80)	60 (0.90)	**118 (.00)**	73 (1.60)	36 (1.40)	0.34 (.31)	18 (10.30)	91 (1.30)	**94.26 (.00)**
Strange experiences	75 (8.90)	129 (2)	**127.61 (.00)**	142 (3.10)	62 (2.40)	2.65 (.06)	22 (12.90)	182 (2.60)	**64.59 (.00)**
Hallucinations	71 (8.40)	208 (3.30)	**52.76 (.00)**	184 (4)	95 (3.70)	0.36 (.30)	18 (10.40)	261 (3.70)	**20.49 (.00)**

Note: Abbreviations are explained in the first footnote to table 1.
[a]Degrees of freedom for each χ^2 test = 1; Significant χ^2 in bold.

each associated with GP attendance for emotional problems and with counseling/therapy but not with GP attendance for physical problems.

A hierarchical multivariate logistic model was specified and estimated. Mplus 5.21[19] was used to estimate the model parameters using robust full information maximum likelihood. This method allowed parameters to be estimated using all available information and has been found to be superior to alternative methods such as listwise deletion.[20,21] The first model included all external constraint factor variables as predictors in the first block and the 3 help-seeking variables as the dependent variables. The second block included the mental state variables, and the third block included the subclinical psychosis symptom variables as predictors. The likelihood ratio χ^2 for the first block was significant (χ^2 = 591.66, df = 18, P < .01), and the addition of the second block resulted in an improved model ($\Delta\chi^2$ = 1301.66, Δdf = 9, P < .01). The addition of the third block also significantly improved the model ($\Delta\chi^2$ = 61.56, Δdf = 15, P < .01). The results of the analysis are reported in table 3.

The results of the analysis revealed that individuals who were female, younger, unqualified, non–English speaking, and substance dependent were more likely to attend their GP for emotional, nervous, or mental problems. Individuals attending a GP for emotional, nervous, or mental problems were also more likely to have been diagnosed with a neurotic disorder and to have poorer self-perceived general health. In relation to psychosis, subclinical experiences of thought control (OR = 2.37), paranoia (OR = 2.05), and strange experiences (OR = 1.70) predicted this form of help-seeking. Older unqualified females, who were more likely to have been diagnosed with a neurotic disorder and to have poorer self-perceived general health, were characteristic of those individuals who attended GP practices for a physical illness or complaint. This form of help-seeking, however, was not predicted by subclinical psychosis. Finally, individuals who were younger, unqualified, and unemployed, who had been diagnosed with a neurotic disorder, and who had poorer self-perceived general health were more likely to attended

therapy/counseling. Those individuals who experienced subclinical paranoia were also more likely (OR = 2.92) to seek this form of help.

To test whether there was a cumulative effect of subclinical psychosis symptoms on help-seeking behavior, a second multivariate logistic model was specified and estimated. This model also included the demographic and clinical variables as predictors; however, subclinical psychosis symptoms in this model were measured cumulatively (0 symptoms to 3 symptoms or more). The 3 help-seeking variables were once again specified as outcome variables. The results of the analysis revealed that cumulative symptom experience was associated with a higher probability of GP attendance for emotional problems (highest probability for those experiencing 2 symptoms) and a higher probability also for seeking counseling/therapy (highest probability for those experiencing 3 or more symptoms). The results of this analysis are reported in table 4.

Discussion

The psychosis continuum recognizes the psychosis phenotype as a continuous distribution of symptoms with individuals differing quantitatively rather than qualitatively.[1–7] It implies that psychosis exists along a continuum of symptom severity and that clinically defined psychosis merely represents the extreme end of a distribution. Clinically defined psychosis therefore, traditionally, is recognizable and distinguishable from nonclinically defined psychosis by virtue of its clinical relevance (ie, its associated distress and its need for care/treatment), and to this end, it maintains a dichotomous profile. However, according to the continuum hypothesis, nonclinically relevant (ie, subclinical) psychosis is merely quantitatively different from more extreme phenotypic expressions and as such should also be indicative of distress and help-seeking behavior but to a lesser extent. While individuals at this level therefore may not be recipients of psychosis diagnoses or related clinical care, they may well access care and treatment from alternative sources in the absence of diagnostic nomenclatures.

Table 3. Associations Between Help-Seeking Behavior Variables, Help-Seeking Correlates, and Subclinical Psychosis Symptoms

	ORs (95% CI)		
	GP-Emotional	GP-Physical	Counseling/Therapy
External factors			
Sex (female)	2.24* (1.84–2.72)	1.32* (1.18–1.48)	1.03 (0.71–1.48)
Age	0.99* (0.98–0.99)	1.02* (1.02–1.02)	0.98* (0.97–0.99)
Education (no qualifications)	1.43* (1.13–1.81)	1.64* (1.41–1.90)	2.10* (1.26–3.50)
Ethnicity (non-white)	1.35 (0.92–2.00)	0.95 (0.74–1.22)	1.84 (0.72–4.67)
Employment (employed)	0.84 (0.69–1.03)	0.91 (0.80–1.04)	0.62* (0.43–0.90)
Language (non-English)	1.84* (1.18–2.86)	1.09 (0.82–1.43)	0.76 (0.25–2.26)
Substance dependence (no)	0.93* (0.87–0.99)	1.05 (0.98–1.12)	1.01 (0.88–1.16)
Mental state factors			
Neurotic disorders	5.80* (4.78–7.05)	1.27* (1.06–1.51)	4.79* (3.21–7.15)
General health	1.57* (1.44–1.71)	1.63* (1.54–1.73)	1.31* (1.10–1.57)
Subclinical psychosis symptoms			
Mania	1.19 (0.34–4.15)	0.58 (0.29–1.16)	0.77 (0.09–6.67)
Thought control	2.37* (1.22–4.59)	1.64 (0.78–3.45)	1.33 (0.45–3.96)
Paranoia	2.05* (1.28–3.28)	0.84 (0.52–1.35)	2.92* (1.54–5.34)
Strange experiences	1.70* (1.06–2.75)	0.99 (0.67–1.46)	1.78 (0.98–3.24)
Hallucinations	1.38 (0.92–2.06)	1.14 (0.83–1.57)	1.13 (0.58–2.22)

*$P < .05$.

The current study focused on self-reported psychosis and help-seeking experiences in a general population sample free from clinically defined psychosis. In doing so, the study assessed psychosis and help-seeking experiences that fall on the less severe end of the psychosis continuum. van Os estimated that subclinical psychotic symptoms, which are associated with a degree of distress and help-seeking behavior but do not necessarily amount to psychotic disorder, exist at a prevalence of approximately 4%.[8] The 5-symptom categories in the current study ranged in prevalence from 0.6% to 3.86%.

It was important to control for the effects of alternative help-seeking correlates to establish whether individual psychosis symptom categories and cumulative psychotic experiences contributed independently to subclinical help-seeking behavior. Identifying help-seeking behavior attributable to subclinical psychotic experiences therefore was only possible if GP and counseling/therapy attendance for alternative purposes (external and mental state problems) were statistically controlled for. It was found that individuals experiencing a range of subclinical psychosis symptoms attended their GP for emotional problems only. Individuals who reported experiences within the symptom categories of thought control, paranoia, and strange experiences were on average 2 times more likely to attend their GP for emotional problems compared with those individuals who reported no psychosis. Individuals experiencing subclinical psychosis, however, unsurprisingly were not more likely to attend their GP for physically related problems than nonexperiencing individuals. Finally, in relation to counseling/therapy attendance, individuals who reported experiences of paranoia were 3 times more likely to be in receipt of counseling/therapy compared with those with no experience of paranoia. The remaining 4 psychosis symptom categories, however, were not associated with this form of help-seeking.

Hanssen et al.[10] reported an elevated probability of transition to psychotic disorder among individuals experiencing multiple psychotic symptoms. It was predicted

Table 4. Cumulative Subclinical Psychosis Symptom Experience and Help-Seeking Behavior

Number of symptoms	Count (%)	GP-Emotional		GP-Physical		Counseling/Therapy	
		Count (%)	OR (95% CI)	Count (%)	OR (95% CI)	Count (%)	OR (95% CI)
0 symptoms	6672 (91.82)	751 (11.26)		4410 (66.10)		151 (2.26)	
1 symptom	378 (5.20)	102 (26.98)	1.64* (1.18–2.27)[a]	258 (68.25)	1.08 (0.83–1.41)[a]	23 (6.08)	1.74* (1.02–2.95)[a]
2 symptoms	94 (1.30)	33 (35.10)	2.69* (1.40–5.15)	59 (62.77)	0.98 (0.59–1.62)	9 (9.57)	1.90 (0.80–4.52)
3 or more symptoms	32 (0.40)	16 (50.00)	2.11* (1.33–3.35)	23 (71.88)	1.03 (0.69–1.53)	7 (21.88)	3.32* (1.90–5.83)

[a]Comparison level; frequencies across cumulative symptom groups do not total to 100% due to missing data.
*$P < .05$.

that this effect would also translate to help-seeking behavior along the psychosis continuum. Multiple psychotic experiences in the current study substantially elevated help-seeking behavior. Compared with those individuals who did not experience subclinical psychosis, those who experienced 1 psychosis symptom were nearly twice as likely (OR = 1.64) to seek the assistance of a GP for an emotional problem. This probability rose for those who experienced 2 symptoms (OR = 2.69) and remained high for those who experienced 3 or more symptoms (OR = 2.11). A similar effect was identified for those individuals who sought counseling/therapy. Compared with no psychosis, the experience of 1 symptom (OR = 1.74) or 3 or more symptoms (OR = 3.32) elevated probabilities of this form of help-seeking. This cumulative effect was more clearly evidenced by the identified rates of help-seeking across cumulative symptom categories. Of those individuals who experienced no psychosis symptoms, rates of GP attendance for emotional and mental problems was of the order of 11%. The rate of GP attendance for emotional and mental problems, however, for individuals who experienced 1 psychosis symptom was much greater at 27%. For 2 psychosis symptoms, the rate of GP attendance for emotional and mental problems was even higher at 35%. For those who experienced 3 or more psychosis symptoms, 50% sought GP help for emotional or mental health reasons. This incremental effect was also evident within the counseling/therapy category. While only 2% of individuals who had never experienced psychosis attended counseling/therapy, 6% of individuals who experienced 1 symptom and 10% of individuals who experienced 2 symptoms had attended counseling/therapy. For those who experienced 3 or more psychosis symptoms, 22% availed of help from the counseling/therapy professions.

There were some methodological limitations associated with this study that should be noted. While every effort was made in the current study to measure "true" subclinical psychotic experiences, the measurement of psychosis-like symptoms can be confounded by numerous factors[22] such as respondents' misunderstanding the nature of the questions (eg, question about hearing things others cannot being interpreted as a question about hearing ability) or normalizing the experiences (eg, interpreting the paranoia question as relating to actual experienced threat/harm). In addition, it is not easy from lay interviews to distinguish reports of odd experiences from true psychotic experiences. Also, while self-report measures of psychotic experience may be accurate in clinical samples, they may be falsely denied in the general population due to the perceived stigma associated with such experiences.[23]

It has been noted that psychotic symptoms rarely arise suddenly but are more likely to gradually evolve and worsen, from an attenuated state to a full-threshold state.[24] It has also been suggested that the early stage of psychosis development represents a critical period and that psychological interventions targeted at this "prepsychotic" period might reduce subsequent long-term impairment.[25–27] Several strategies have been developed to identify individuals who are thought to be experiencing a "prepsychotic" phase of illness and are at heightened risk of developing a psychotic disorder.[24] The current findings suggest that individuals prone to psychosis might be detected before clinical onset, thus providing a basis from which to offer interventions to halt progression to severe and enduring distress. These findings also however suggest, importantly, that subclinical psychosis may not merely be indicative of a prodromal period. Subclinical psychosis while preceding psychotic disorder in itself can, theoretically, constitute a fixed position on the psychosis continuum. As such the psychosis phenotype at any point may be stationary as well as transitory in nature. It is worth noting that individuals experiencing subclinical psychosis in the current study were in receipt of care; however, they were also not identifiable within traditional psychiatric taxonomies. Evidence therefore favoring a continuum hypothesis may not only impact on the conceptualization of the psychosis phenotype, but more importantly, it may have a positive impact on the detection of individuals who are at increased risk of psychological distress and aid in the design and implementation of more effective treatment at both clinical and subclinical levels.

Acknowledgments

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