RESEARCH ARTICLE

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Screening for psychosis risk in primary mental health care services – Implementation, prevalence and recovery trajectories

Katherine Newman-Taylor[1,2] | Tess Maguire[1,2] | Tanya Smart[3] |
Emma Bayford[3] | Emily Gosden[4] | Grace Addyman[4] | Pete Bullard[4] |
Miriam Simmons-Dauvin[3] | Morad Margoum[5] |
Ben Smart[5] | Elizabeth Graves[1]

[1]University of Southampton, Southampton, UK

[2]Southern Health NHS Foundation Trust, Southampton, UK

[3]Solent NHS Trust, Portsmouth, UK

[4]Isle of Wight NHS Trust, Newport, Isle of Wight, UK

[5]Dorset HealthCare University NHS Foundation Trust, Bournemouth, UK

Correspondence
Katherine Newman-Taylor, Psychology Department, University of Southampton, Building 44, Highfield Campus, Southampton SO17 1BJ, UK.
Email: knt@soton.ac.uk

Abstract

Objectives: Early interventions improve outcomes for people at high risk of psychosis and are likely to be cost saving. This group tends to seek help for emotional problems – depression and anxiety – via primary care services, where early detection methods are poor. We sought to determine prevalence rates of high risk for psychosis in UK primary care mental health services and clinical outcomes following routinely delivered psychological therapies.

Methods: We used a brief screen designed for settings with low base rates and significant time constraints to determine prevalence of high risk for psychosis in UK 'Talking Therapies' services. We examined socio-demographic characteristics, presenting problems and recovery trajectories for this group, compared with people not at risk of psychosis.

Results: A 2-item screen selected for specificity yielded a prevalence rate of 3% in primary care mental health services. People at elevated risk of psychosis were younger and more likely to report at least one long-term physical condition. This group presented with higher levels of depression, anxiety and trauma symptoms at assessment and were less likely to have recovered at the end of treatment, compared to people not at risk.

Conclusions: Very brief screening tools can be implemented in busy health care settings. The 3% of referrals to UK primary care psychological therapies services at elevated

risk of psychosis typically present with more severe symptoms and greater levels of comorbidity and may require augmented interventions to recover fully.

INTRODUCTION

Early intervention improves outcomes for people at risk of psychosis (Mei et al., 2021). A third of those at clinical high risk (CHR-P) develop psychosis within 3 years of initial presentation (Fusar-Poli, 2012), yet early detection methods are poor, particularly in primary care (Fusar-Poli et al., 2019). CHR-P includes familial risk, attenuated psychotic symptoms and/or short-lived and remitting psychotic symptoms (Yung et al., 1996). In a recent meta-analysis of preventive interventions for people at CHR-P, Mei et al. (2021) found that psychological interventions (pooled) reduced transition to psychosis by 45% at 12 months and by 40% at 18–48-months follow-up. This was largely due to the impact of CBT which led to a reduction in incidence at 12-months (RR = .52, 95% CI = .33–.82) and 18–48-months (RR = .60, 95% CI = .42–.84) (cf. Fusar-Poli et al., 2019; Nelson et al., 2020). In addition to improving clinical outcomes, preventative interventions are likely to be cost-effective and cost-saving (Ologundudu, 2020). Scalability of these benefits depends on implementation of practicable screening tools and interventions in primary care.

Epidemiological analyses of national psychiatric morbidity surveys in the United Kingdom and United States indicate that individuals at elevated risk of psychosis are twice as likely to seek help than those not at risk and typically do so for emotional problems (DeVylder et al., 2014; Murphy et al., 2012). People who present to primary care who are CHR-P report higher levels of depression and anxiety (Heinze et al., 2018; Knight, Russo, et al., 2020) and depression scores largely account for help-seeking (Kobayashi et al., 2011). Primary care services offering interventions for emotional problems are therefore best placed to identify and treat this group. In the United Kingdom, primary care 'Talking Therapies'[1] deliver evidence-based psychological therapies for depression and anxiety (Clark, 2018; Wakefield et al., 2021).

The Comprehensive Assessment of At-Risk Mental States (CAARMS; Yung et al., 2006) and Structured Interview for Prodromal Syndromes (SIPS; Miller et al., 1999, 2003) are widely recognized as the gold standard tools for identifying CHR-P in early detection services. These interview assessments are designed to confirm CHR-P, conducted by trained clinicians and lengthy to administer. In primary care, brief tools are required that can be used with minimal or no training.

Brief screens include the 12-item Prime Screen-Revised (PS-R; Miller et al., 2003) with good sensitivity (100%) and specificity (>70%); the 20- and 6-item versions of the Primary Care Checklist (PCCL; French et al., 2012) with good sensitivity (89% and 88%) and more modest specificity (60% and 47%); and the 16-Item Prodromal Questionnaire (PQ-16; Ising et al., 2012; Loewy et al., 2005) with good sensitivity (87%) and specificity (87%) (see Kline et al., 2015; Kline & Schiffman, 2014 for reviews). While useful in specialist services and for research purposes, these measures have not been widely adopted in primary care, probably due to significant competing clinical and administrative demands. Very brief tools are needed for settings with low CHR-P base rates and significant time constraints (Phalen et al., 2018). A series of two-item screens has been developed for these settings, using Bayesian modelling of responses to previously validated measures (Phalen et al., 2018).

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[1]Previously 'Improving Access to Psychological Therapies' (IAPT) – the first freely accessible national psychological therapies service.

Initial studies of CHR-P in primary care suggest that one in four people accessing services for emotional problems also report psychotic experiences (Knight, Russo, et al., 2020; Knight, Stochl, et al., 2020; Perez et al., 2018). Knight, Russo et al. (2020) and Knight, Stochl et al. (2020) administered the 15-item CAPE (Capra et al., 2013, 2017) in primary mental health psychological services. The measure was completed by just 7% of the eligible caseload of participating services and identified slightly higher than general population rates of psychotic-type experiences (approximately one in five people report paranoid ideation (Bebbington et al., 2013)). The Knight studies also show that on average people with CHR-P benefit from interventions for depression and anxiety but are less likely to reach recovery on standardized measures at end of treatment (27%) compared with those without psychotic experiences (62%) (Knight, Russo, et al., 2020). If CHR-P is common in people accessing primary mental health services and typically goes undetected, very brief tools are needed for use in routine practice. Additionally, a more *specific* measure could identify those most likely to benefit from adapted interventions designed to address the recovery gap between people with and without psychotic experiences accessing primary care for treatment of depression and/or anxiety.

In the current study, we used a 2-item screen (Phalen et al., 2018) in primary care mental health services to examine (a) prevalence rates of CHR-P in people seeking help for emotional problems, (b) socio-demographic characteristics and presenting problems for this group and (c) clinical treatments and outcomes, compared with those not at elevated risk of psychosis.

METHODS

The study was approved by the UK NHS Research Ethics Committee and Health Research Authority (ID: 290648) and the University of Southampton (ID: 64425) and was pre-registered on the Open Science Framework (https://osf.io/b3jca).

Design

This is a longitudinal observational study of help-seeking adults who meet criteria for primary mental health services for depression and/or anxiety.

Patient involvement

We organized a patient and public involvement (PPI) group for the study consisting of three people with direct or indirect experience (through family members) of CHR-P and accessing NHS Talking Therapies. We met with the group over the course of the project to discuss the study design, recruitment and implementation. All three members of the group highlighted the importance of asking about unusual experiences at assessment, given the impact on their lives and reluctance to volunteer this information unless asked (due to the stigma associated with psychosis). The group emphasized the importance of asking these questions sensitively (e.g., using 'unusual' rather than 'odd' to describe the experiences), commenting on how common these are and responding warmly and non-judgementally.

Procedure

The assessing clinician gathered routinely collected socio-demographic data (age, ethnicity, gender, relationship status, religious group, employment status and any long-term conditions), nationally mandated patient reported outcome measures of emotional problems and impact (see Measures, below) and the 2-item CHR-P screen (Phalen et al., 2018). All information was entered into the

service database, in line with routine governance procedures and pseudonymized data were passed to the research team following removal of personally identifiable information. The screen was administered at the same point, under the same circumstances and by the same clinicians for CHR-P and nCHR-P groups.

Participants

Three UK NHS Trusts participated in the study. Each delivers primary care Talking Therapies comprising evidence-based psychological therapies for depression and anxiety (Clark, 2018; Wakefield et al., 2021). Participating services in these neighbouring NHS Trusts serve a combined population of ~670,000, across city, urban and rural geographical areas in the South of England.

Individuals aged 16 and above, with no upper age limit, are referred by health care clinicians or self-refer. All who accessed treatment for depression and/or anxiety between 01.10.21 and 30.09.2022 and who met service criteria (primary diagnosis of depression and/or anxiety), were assessed using the two-item screen for early psychosis. The study sample consisted of 886 participants; 444 people who responded yes to either or both of the two screening items (CHR-P) and started treatment, and 442 controls (nCHR-P) who started treatment. The control group was generated by randomly selecting the same number of individuals as were identified as CHR-P, from all others eligible for the service each month. The full sample was aged between 16 and 86 (M = 34.61, SD = 14.84), of which the majority were female (63% women; 35% men; 2% non-binary). For full demographic details, see the Supporting Information.

Measures

Psychotic experiences

Two-item *Screens for Early Psychosis* were constructed from Bayesian analyses of previously validated screening measures (Phalen et al., 2018). We used the Y-PARQ 12 ('Do you ever hear the voice of someone talking that other people cannot hear?') and 22 ('Do you see things that others can't or don't see?') version to optimize specificity (73%) and sensitivity (65%) in help-seeking samples.

Depressed mood

The *Physical Health Questionnaire-9* (PHQ-9; Kroenke et al., 2001) is a 9-item measure of depression over the last 2 weeks. Items are rated on a 4-point Likert scale from 0 (not at all) to 3 (nearly every day). Responses are summed and higher scores reflect higher levels of depressed mood. Internal consistency is good ($\alpha = .89$).

Anxiety

The *Generalized Anxiety Disorder-7* (GAD-7; Spitzer et al., 2006) is a 7-item measure of generalized anxiety over the last 2 weeks. Items are rated on a 4-point Likert scale from 0 (not at all) to 3 (nearly every day). Responses are summed and higher scores reflect higher levels of depressed mood. Internal consistency is excellent ($\alpha = .92$).

Functioning

The *Work and Social Adjustment Scale* (WSAS; Mundt et al., 2002) is a 5-item measure of impaired functioning. Items are rated on a 9-point Likert scale from 0 (not at all) to 8 (very severely). Responses are summed and higher scores reflect higher levels of impairment. Internal consistency is adequate to excellent ($αs > .70$).

Problem specific measures

In addition to the GAD-7, anxiety specific measures are utilized in these services as indicated by the person's presentation. These include the *Posttraumatic Stress Disorder Checklist for DSM-5* (PCL-5; Weathers et al., 2014), a 20-item measure of PTSD symptom severity; the *Health Anxiety Inventory* (HAI; Salkovskis et al., 2002), an 18-item measure of health anxiety/hypochondriasis; the *Social Phobia Inventory* (SPIN; Connor et al., 2000), a 17-item measure of social phobia; the *Obsessive-Compulsive Inventory* (OCI; Foa et al., 1998), a 42-item measure of obsessive compulsive disorder and the *Panic Disorder Severity Scale* (PDSS; Shear et al., 2001), a 7-item measure of severity of panic disorder. For these measures, items are rated on Likert scales of various lengths. Responses are summed to give totals, with higher scores reflecting higher levels of distress/impairment.

Analysis plan

We calculated prevalence rates for psychosis risk using the 2-item screen. Socio-demographic, presenting problem and patient reported outcome data were compared for people who reported psychotic experiences (CHR-P) and those who did not (nCHR-P), using t-tests for continuous variables and chi-square for categorical data. We compared recovery trajectories based on the indices used by UK primary mental health care services, separately for measures of depression and anxiety: *reliable improvement* (indicative of clinically significant change, specified for each of the outcome measures), *clinical change* (*improvement*)[2] (indicative of moving from above to below caseness) and *reliable recovery* (meeting criteria for both *reliable improvement* and *clinical change* (*improvement*)). In line with national guidelines, therapy was defined as $≥$ two sessions (NHS England, 2024). Finally, we compared change in outcomes pre- to post-therapy between the two groups using MANCOVA, controlling for sessions attended.

RESULTS

Prevalence of psychotic experience

Between 01.10.21 and 30.09.22, participating services completed a total of 14,655 assessments, of which 453 were identified as CHR-P, giving a prevalence rate of 3%.

Socio-demographic characteristics

The CHR-P group (M = 32, SD = 13.78, range 16–81) was on average younger than the nCHR-P group (M = 37, SD = 15.39, range 16–86). There were also differences in rates of employment and

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[2]Services also use *clinical change* to calculate *recovery.* indicative of moving from above caseness (for either depression or anxiety) to below caseness (for both depression and anxiety).

employment type; those in the CHR-P group were less likely to be employed, more likely to be in education and more likely to report at least one long-term condition, $\chi^2(1, N = 886) = 7.72$, $p = .005$. We found no differences in gender, ethnicity, religion or reported disability. The sample was predominantly female (CHR-P = 59.2%; nCHR-P = 66.1%), White (CHR-P = 86.3%; nCHR-P = 89.4%) and not religious (CHR-P = 61.9%; nCHR-P = 55.7%). See the Supporting Information for full details.

Presenting problems

There were no differences between groups in presenting problem (depression or anxiety) as recorded by the assessing clinician, $\chi^2(4, N = 886) = 3.58$, $p = .47$. There were differences in anxiety sub-types, $\chi^2(9, N = 101) = 35.73$, $p < .001$; the CHR-P group was less likely to present with generalized anxiety disorder and more likely to present with post-traumatic stress disorder – see Figure 1.

Treatments offered

People in the CHR-P group were more likely to receive 'high intensity' therapies than those in the nCHR-P group, $\chi^2(1, N = 423) = 18.0$, $p < .001$ – see Figure 2. We found no differences in number of sessions attended ($t = .19$, $p = .42$), number of sessions not attended ($t = -.80$, $p = .90$), or the number of sessions cancelled ($t = -.80$, $p = .03$).

Clinical outcomes

The CHR-P group reported more severe depression (PHQ-9), anxiety (GAD-7), impact on functioning (WSAS) and trauma symptoms (PCL-5), at both assessment and end of therapy, compared to the nCHR-P group (see Table 1 and Figure 3). We found no differences in any other anxiety disorder specific measures (see the Supporting Information).
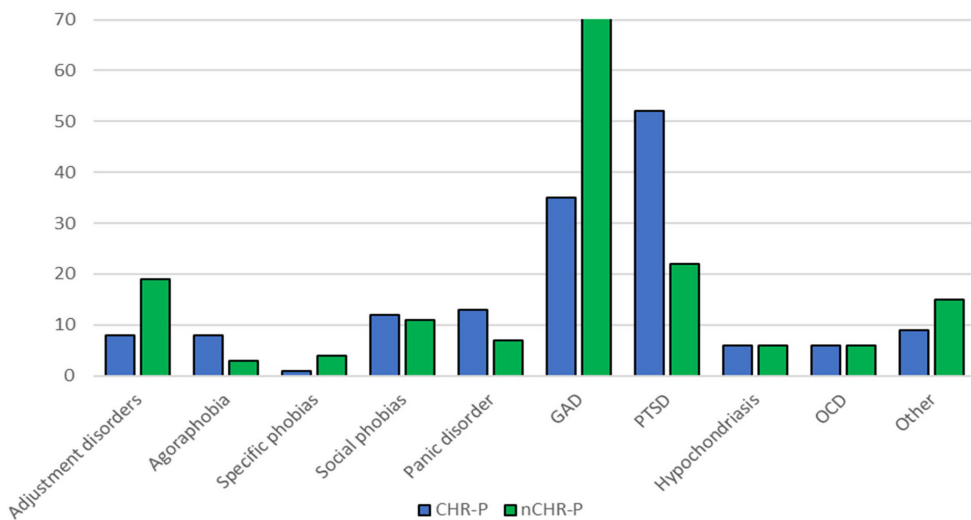

FIGURE 1 Primary presenting problem at assessment for high and low psychosis risk groups. CHR-P, clinical high risk for psychosis; GAD, generalised anxiety disorder; nCHR-P, not clinical high risk for psychosis; OCD, obsessive compulsive disorder; PTSD, post-traumatic stress disorder.
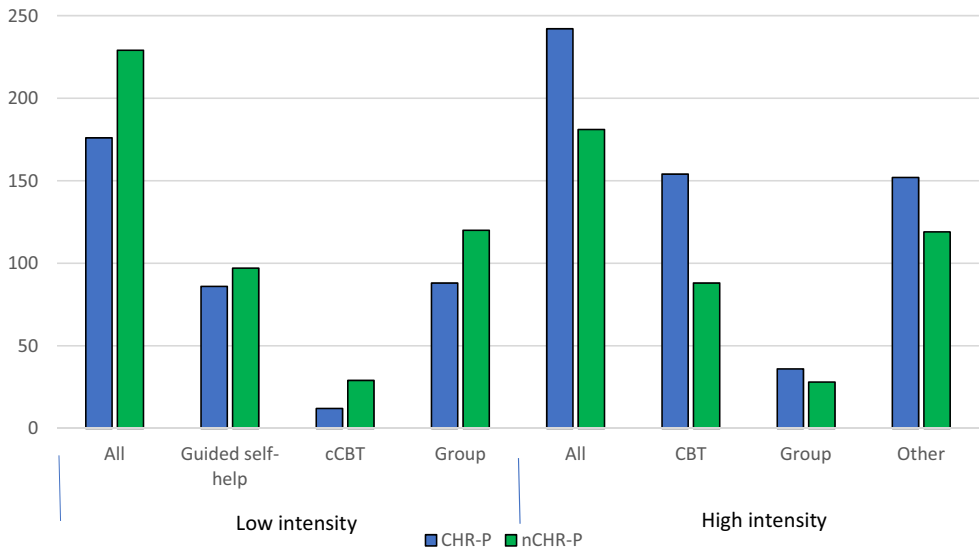
FIGURE 2 Treatments offered to high and low psychosis risk groups. CHR-P, clinical high risk for psychosis; nCHR-P, not clinical high risk for psychosis; 'Low intensity therapies': Guided self-help, computerized CBT (cCBT) and manualized groups. 'High intensity therapies': Individual CBT, formulation-based groups and other individual therapies.

There were no differences in change scores for measures of depression (PHQ-9) between groups, though the CHR-P group ($M = -4.09$) showed less improvement in the measure of anxiety than the nCHR-P group ($M = -4.99$) ($t = -2.05$, $p = .04$) – see Table 1.

Recovery trajectories differed between groups; the CHR-P group were less likely to show reliable improvement[3] in anxiety (GAD-7), less likely to show clinical change (improvement)[4] in depression (PHQ-9) and anxiety (GAD-7) and therefore less likely to show reliable recovery[5] in depression (PHQ-9) and anxiety (GAD-7) – see Table 2.

We ran a two-way Multivariate Analysis of Covariance (MANCOVA) to examine whether clinical outcomes (PHQ-9 and GAD-7) differed between the two groups (CHR-P and nCHR-P) and type of therapy (whether patients received individual CBT or not), after controlling for number of sessions attended. We controlled for number of sessions because services can offer a limited number of additional sessions at clinicians' discretion, typically for people with more complex presentations. Using Wilks' criterion, combined clinical outcomes did not differ by group, Wilk's $\lambda = 1.00$, $F(2, 871) = 45.13$, $p = .17$, partial $\eta^2 = .004$ or type of therapy, Wilk's $\lambda = 1.00$, $F(2, 871) = 1.08$, $p = .34$, partial $\eta^2 = .002$ and we found no interaction effect, Wilk's $\lambda = 1.00$, $F(2, 871) = .91$, $p = .83$, partial $\eta^2 < .001$, after controlling for number of sessions.

DISCUSSION

Using a longitudinal observational design, we assessed prevalence of high psychosis risk in people seeking help for emotional problems via primary health care services, and the socio-demographic characteristics and recovery trajectories of this group. We found that 3% of all referrals were at elevated risk of psychosis (CHR-P) and that on average people in this group were younger, more likely

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[3]Reliable improvement: clinically significant change, specified for different scales.

[4]Clinical change (improvement): moving from above to below likely caseness for depression or anxiety.

[5]Reliable recovery: meeting criteria for both reliable improvement and clinical change (improvement).

TABLE 1 Outcomes at assessment and end of treatment for high and low psychosis risk groups.

| | N | | M | | SD | | | | |
	CHR-P	nCHR-P	CHR-P	nCHR-P	CHR-P	nCHR-P	t	p	Cohen's d
PHQ-9 assessment	354	343	18.21	15.19	5.18	5.27	−7.63	<.001**	−.58
PHQ-9 end	349	341	13.41	9.72	7.50	6.21	−7.04	<.001**	−.54
GAD-7 assessment	354	343	14.97	13.66	4.37	4.38	−3.94	<.001**	−.30
GAD-7 end	349	341	10.91	8.66	6.25	5.45	−5.04	<.001**	−.38
WSAS assessment	354	343	22.26	19.11	8.87	8.72	−4.73	<.001**	−.36
WSAS end	349	341	18.84	14.57	10.61	9.89	−5.47	<.001**	−.42
PCL-5 assessment	258	240	8.14	4.33	20.48	14.95	−2.35	.02*	−.21
PCL-5 end	259	240	4.81	1.93	15.22	8.85	−2.57	.01*	−.23
PHQ-9 change	349	340	−4.79	−5.52	6.76	6.41	−1.45	.15	−.11
GAD-7 change	349	340	−4.09	−4.99	5.93	5.66	−2.05	.04*	−.16

Note: Measures taken at assessment and end of therapy.

Abbreviations: CHR-P, clinical high risk for psychosis; GAD-7, Generalised Anxiety Disorder-7 measure of anxiety; nCHR-P, not clinical high risk for psychosis; PCL-5, Posttraumatic Stress Disorder Checklist for DSM-5 measure of trauma symptoms; PHQ-9, Physical Health Questionnaire-9 measure of depression; WSAS, Work and Social Adjustment Scale measure of functioning.
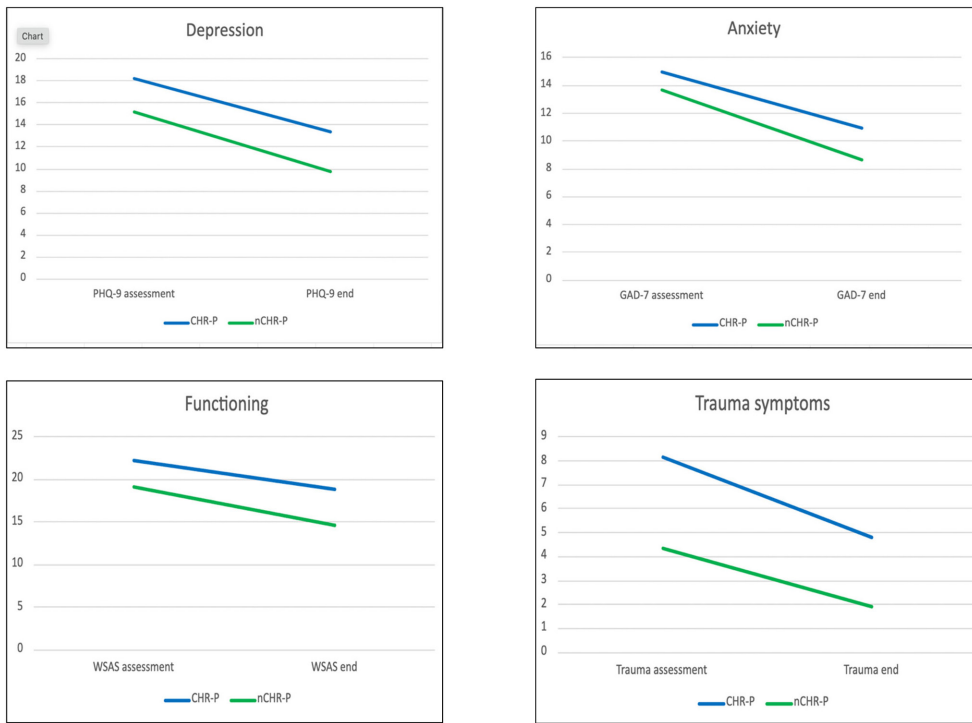
*$p < .05$. **$p < .001$.

FIGURE 3 Outcomes at assessment and end of treatment for high and low psychosis risk groups. CHR-P, clinical high risk for psychosis; GAD-7, Generalised Anxiety Disorder-7 measure of anxiety; nCHR-P, not clinical high risk for psychosis; PCL-5, Posttraumatic Stress Disorder Checklist for DSM-5 measure of trauma symptoms; PHQ-9, Physical Health Questionnaire-9 measure of depression; WSAS, Work and Social Adjustment Scale measure of functioning. Measures taken at assessment and end of therapy (end).

to be in education and more likely to report at least one long-term physical condition, compared with those not at risk of psychosis (nCHR-P). The CHR-P group presented with higher levels of depression, anxiety and trauma symptoms at assessment and were less likely to have recovered at the end of treatment.

Our prevalence rates are considerably lower than previously found (Knight, Russo, et al., 2020; Knight, Stochl, et al., 2020; Perez et al., 2018). This is likely to be due to differences in specificity of screening measures. Previous studies have used the CAPE-15 which elicits frequency and distress associated with perceptual abnormalities, persecutory ideation and bizarre experiences over 3 months. While this is a valid measure of psychotic experiences, busy health care services require much briefer tools. The 2-item screen used in the current study (Phalen et al., 2018) was implemented as part of routine triage assessments across the three participating services and yielded prevalence rates in line with more conservative population estimates of sub-clinical psychotic experiences (van Os et al., 2009).

The 2-item screen was selected for specificity (along with good sensitivity) and so is likely to have identified the most severe/complex sub-group of the population found by Knight and colleagues. This is supported by a recent latent analysis of previous studies' CAPE-15 data which showed that those scoring most highly on perceptual anomalies (which are assessed by the Phalen screen used here) also score most highly on persecutory ideation and bizarre experiences (Knight, Russo, et al., 2020; Wiedemann et al., 2024).

We found that people with elevated risk of psychosis have more severe depression and anxiety at assessment and are more likely to have at least one long-term physical condition. This aligns with the emerging picture of psychotic experience as an indicator of severity and complexity in primary care

TABLE 2 Recovery trajectories for high and low psychosis risk groups.

	N		%			
	CHR-P	**nCHR-P**	**CHR-P**	**nCHR-P**	χ^2 *(df)*	*p*
PHQ-9 reliable improvement						
Yes	150	160	42.4	46.5	1.21 (1)	.27
No	204	184	57.6	53.5		
GAD-7 reliable improvement						
Yes	170	201	48.0	58.4	7.59 (1)	.006*
No	184	143	52.0	41.6		
PHQ-9 clinical change						
Improvement	117	161	33.1	46.8	15.59 (2)	<.001**
No change	233	176	65.8	52.1		
Deterioration	4	7	1.1	2.0		
GAD-7 clinical change						
Improvement	114	169	32.2	49.1	22.70 (2)	<.001**
No change	232	164	65.5	47.7		
Deterioration	8	11	2.3	3.2		
PHQ-9 reliable recovery						
Yes	98	130	27.7	37.8	8.10 (1)	.004*
No	256	214	72.3	62.2		
GAD-7 reliable recovery						
Yes	102	145	28.8	42.2	13.57 (1)	<.001**
No	252	199	71.2	57.8		

Abbreviations: CHR-P, clinical high risk for psychosis; GAD-7, Generalised Anxiety Disorder-7 measure of anxiety; nCHR-P, not clinical high risk for psychosis; PCL-5, Posttraumatic Stress Disorder Checklist for DSM-5 measure of trauma symptoms; PHQ-9, Physical Health Questionnaire-9 measure of depression; WSAS, Work and Social Adjustment Scale measure of functioning.
*$p < .005$. **$p < .001$.

settings (Knight, Russo, et al., 2020; Knight, Stochl, et al., 2020; Perez et al., 2018). Importantly, this group did benefit from psychological therapies for emotional problems but saw less improvement and were less likely to reach recovery at the end of treatment. These patterns align with the results of Knight, Russo et al. (2020) and highlight a recovery gap between people presenting to primary mental health services with and without psychotic experiences. We do not yet know if this sub-group would benefit most from facilitated access to specialist services, or augmented therapies for emotional problems delivered in primary care settings. Insofar as this group are seeking help for their depression and/or anxiety via primary mental health services, augmented therapies for depression and/or anxiety may be most acceptable and scalable.

Limitations

CHR-P includes familial risk, attenuated psychotic symptoms and/or short-lived and remitting psychotic symptoms (Yung et al., 1996) – we used a measure of psychotic experiences aligned with the latter two risk indicators. The Y-PARQ and 2-item versions were standardized with adolescents and young adults, while our sample included people aged 16–86. That said, our PPI advisory group included adults in middle age who found the items to be relevant and the wording acceptable. Relying on self-report responses to questions about psychotic experiences may under-estimate prevalence due to stigma associated with psychosis and schizophrenia related diagnoses (cf. Skrobinska et al., 2024; Tiller et al., 2023).

Relying on routinely collected service data allowed us to gather a large, representative sample, but patient electronic data records are sometimes incomplete. For example, ethnicity data was recorded for just 35% of UK secondary care data during 2001/2002 (Iqbal et al., 2009), although primary care NHS Talking Therapies services have more robust data systems (ethnicity data was reported in 97% of our sample). Finally, the age difference we found is interesting and future research should consider whether any discrepancy in clinical outcomes between CHR-P and nCHR-P groups varies by age, e.g., is greater for younger people.

Implications

Early detection of psychosis risk via primary care settings presents a unique opportunity to identify, engage and treat people at elevated risk of psychosis. This is likely to yield considerable health and economic benefits given evidence that psychological interventions reduce depression, anxiety (Knight, Russo, et al., 2020) and transition to psychosis (Mei et al., 2021) in people at risk for psychosis. This also aligns with current UK national guidance to increase access to psychological therapies and not offer antipsychotic medication to this group (NICE clinical guideline [CG178], 2014).

Scalability of these benefits depends on practicable screening tools. The Phalen et al. 2-item screen (Phalen et al., 2018) can be used to identify people at risk for psychosis in busy primary mental health services. The UK NHS Trusts involved in the current study have incorporated this brief screen into their routine assessment process and now use as an indicator of severity/complexity for all referrals. Patient involvement in the current study shaped implementation of the screen; we encouraged clinicians to communicate non-judgement and warmth when asking these questions given the stigma associated with psychosis.

The high rates of trauma symptoms reported by people at elevated risk of psychosis aligns with the wider literature linking early adversity and psychosis (Kraan et al., 2015; Loewy et al., 2019) and indicates that we should be asking about past and present trauma in our clinical practice. This can be done briefly and sensitively, weaving key questions into routine assessment processes (see Read et al., 2007).

Further research is now needed to determine how best to treat people who access primary care services for depression and/or anxiety and whether augmented therapies for emotional problems delivered in these settings can close the recovery gap between help-seeking populations with and without psychotic experiences, and if this has an impact on subsequent transition rates for the third of people at CHR-P who are likely to go on to develop psychosis.

CONCLUSION

This is the first study to assess psychosis risk in primary mental health care services utilizing a practicable screen designed for settings with low base rates and significant time constraints. We found that 3% of people seeking treatment for depression and/or anxiety are at risk for psychosis. This group is younger, presents with higher levels of depression, anxiety and trauma, and are less likely to have recovered at the end of treatment. Screening for psychosis risk in primary care enables early identification and treatment of particularly vulnerable individuals at a time when they are seeking help. This group are likely to require augmented interventions to recover fully.

AUTHOR CONTRIBUTIONS

Katherine Newman-Taylor: Conceptualization; methodology; funding acquisition; writing – original draft; writing – review and editing. **Tess Maguire:** Conceptualization; methodology; formal analysis; writing – review and editing. **Tanya Smart:** Investigation; writing – review and editing. **Emma Bayford:** Investigation; writing – review and editing. **Emily Gosden:** Investigation; writing – review and editing. **Grace Addyman:** Investigation; writing – review and editing. **Pete Bullard:** Conceptualization; methodology; investigation; writing – review and editing. **Miriam Simmons-Dauvin:** Investigation;

writing – review and editing. **Morad Margoum:** Conceptualization; methodology; investigation; writing – review and editing. **Ben Smart:** Investigation; writing – review and editing. **Elizabeth Graves:** Conceptualization; methodology; funding acquisition; data curation; formal analysis; writing – original draft; writing – review and editing.

CONFLICT OF INTEREST STATEMENT

None.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICAL APPROVAL

This work has been carried out in accordance with the Declaration of Helsinki. Privacy rights were observed throughout.

ORCID

Katherine Newman-Taylor https://orcid.org/0000-0003-1579-7959
Tess Maguire https://orcid.org/0000-0002-9355-6985
Tanya Smart https://orcid.org/0000-0002-3989-3438
Emma Bayford https://orcid.org/0000-0002-1726-4884
Miriam Simmons-Dauvin https://orcid.org/0009-0002-2594-2902
Elizabeth Graves https://orcid.org/0000-0002-4525-6304

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