Use or no use? Young People's engagement with mental health services

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A B S T R A C T

Mental health challenges among young people are a significant concern in the United Kingdom, with an estimated 16 % of young people experiencing common mental health problems like anxiety and/or depression on any given day, yet only one in four of these are able to access mental health services. This study seeks to identify the key determinants influencing young people's mental health care utilization and to examine the experiences faced by those who do not engage with mental health services, using a co-produced adaptation of Andersen's Behavioral Model of Health Care Utilization to analyze linked health care data from the NEXT STEPS cohort. Imputation addressed missing data, while logistic regression assessed need, enablers, and predispositions influencing care use. Key findings indicate that young people's mental health care utilization is primarily driven by clinically assessed need, while factors such as female gender, presence of psychiatric-level symptoms, limited social support, external locus of control, parental unemployment emerged as weaker predictors of service engagement. Young people with common mental health problems who had not accessed mental health services were less likely than service users to be female, live in single-parent households, have caring responsibilities, or report bullying, but were more likely to report positive parental relationships. Adults who had accessed mental health services as a young person experienced less favourable adult outcomes and quality of life relative to non-users. These findings highlight the need to reform youth mental health care models towards more inclusive, preventative, and holistic approaches.

1. Introduction

Despite the growing recognition of mental health challenges among young people, cross-sectional data indicate that only one in four children and adolescents experiencing common mental health problems currently access mental health services (MHS) (Cornish et al., 2017; Sadler et al., 2018). While previous research has examined the barriers to accessing services among young people currently receiving care (Anderson et al., 2017), there remains a significant gap in understanding the experiences of those who do not engage with MHS. In the literature, these young people, whose needs are not adequately met within the current system, are described as being affected by the 'missing middle' care gap (Dunn et al., 2024; Menssink et al., 2025). A recent literature review (Looi et al., 2022) highlighted the lack of empirical research examining the characteristics and service needs of young people affected by the 'missing middle' care gap. Building on this, the present study

explores the experiences and challenges of young people who do not utilize MHS despite care needs, focusing on potential barriers and the broader implications for their well-being.

Access to MHS for young people is a complex and contentious issue, with ongoing debates about the factors that contribute to disparities in service utilization. One perspective suggests that healthcare professionals may be hesitant to medicalize mental health issues, particularly those perceived as part of normal development challenges, fearing it could undermine young people's resilience (Foulkes, 2024). On the other hand, research has highlighted that inequalities in accessing MHS are exacerbated by social, economic, and systematic barriers with certain subpopulations experiencing greater difficulty in obtaining support (Mosquera et al., 2017). This study explores both perspectives, aiming to uncover the key factors that shape young people's mental health care utilization.

To better understand healthcare utilization patterns, this study

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applies Andersen's Behavioral Model of Health Care Utilization (Alkhawaldeh et al., 2023; Babitsch et al., 2012), which has been widely used to examine factors influencing health care utilization. Originally developed to explain adult healthcare use, this model has been adapted in co-production workshops with young people to explore young people's mental healthcare utilization patterns. The model identifies three key categories: predisposing characteristics, enabling resources, and personally recognized (perceived)/clinically assessed (evaluated) need. For young people these factors play a crucial role in determining whether they are able to make use of MHS. This study specifically explores how these factors come together in the context of youth mental health, focusing on common mental health problems such as anxiety and depression.

2. Method

2.1. Analysis plan development

A co-production approach (MacLachlan et al., 2024) informed the development of the secondary data analysis plan. YoungMinds, a UK youth mental health charity, recruited and trained four young people with lived experience as co-researchers. Training covered research methods, academic engagement, workshop facilitation and analysis. Workshop topics and activities were co-designed by academics, YoungMinds staff, and co-researchers. Two workshops included 5–12 participants recruited by YoungMinds; a third involved 10 young people with common mental health problems who had not accessed MHS, recruited via an agency. After each workshop, co-researchers, facilitators, and academics independently analysed discussions and shared summaries in debrief meetings, informing iterative improvements. Workshop participants received compensation and co-researchers received honoraria for their contributions across the project.

2.2. Secondary data analysis

2.2.1. Data

Our secondary analysis used data from the Longitudinal Study of Young People in England (LSYPE/NEXT STEPS), which has followed 15,770 students from age 13/14 (Year 9, 2004) into adulthood (Calderwood et al., 2016). At age 25, 4895 participants consented to health record linkage, enabling access to Hospital Episode Statistics (NHS Digital and University College LondonUCL Institute of EducationCentre for Longitudinal Studies, 2025) covering Accident and Emergency (A&E;2007–2017), in/day-patient (1997–2017), and outpatient care (2003–2017).

2.2.2. Statistics

Health record-linked cohort data were accessed via the UK Data Service's secure environment (NHS Digital and University College LondonUCL Institute of EducationCentre for Longitudinal Studies, 2025). Following the Data Protection Act 2018, measures were taken to prevent disclosure, including adjusting findings in line with Statistical Disclosure Control.

Descriptive statistics were implemented in IBM SPSS Statistics (version 29; IBM Corp. Released, 2023). Logistic regression was implemented in R (R Core Team, 2024) via RStudio (RStudio Team, 2024). Missing data were addressed using multiple imputation via the *mice* (Multivariate Imputation by Chained Equations) R-package (van Buuren and Groothuis-Oudshoorn, 2011), applying linear regression/predictive-mean-matching to impute continuous variables and logistic regression to impute categorical variables. *Mice* uses an iterative process to create multiple imputed datasets, each reflecting the uncertainty inherent in the missing data. Given that attrition in NEXT STEPS is associated with common mental health problems (Driessens and Smith), a pattern mixture logistic regression model approach was used for imputation of categorical common mental health problem

variables (R function mice.impute.mnar.logreg) to account for non-ignorable missingness. This approach groups participants based on their missing data patterns, allowing for more robust estimates by weighting the results according to the probability of each missingness pattern. A delta adjustment is used in the pattern mixture model to shift the imputation (Rezvan et al., 2018). All non-ignorable missing data approaches rely on assumptions that cannot be directly tested. Based on expert consensus, imputations were adjusted to reflect higher common mental health problem likelihood among non-responders (see Supplementary Information).

Missing values are imputed through a series of chained equations that model each variable with missing data as a function of other variables in the dataset. As recommended (von Hippel, 2020), the imputation process was repeated 50 times with 25 iterations to generate multiple datasets, which were then analysed independently using logistic regression for binary outcome variables. Logistic regression was run separately for predisposing, enabling, and need factors; significant predictors from each model were combined into a final model. The results of the 50 imputed datasets were combined using Rubin's rules (Rubin, 2004) to produce final estimates and standard errors that account for both the within-imputation and between-imputation variability.

2.3. Measures

2.3.1. Healthcare records

The analysis focused on secondary mental health care (SMHC) utilization recorded in Hospital Episode Statistics (HES) and Mental Health Service DataSet (MHSDS) from November 1, 2007 to March 31, 2017, the period in which all forms of secondary care were consistently observable for the NEXT STEPS cohort. SMHC use (yes/no) was defined as any inpatient, outpatient, or day-patient care for common mental health problems (ICD-10: F30–F48, F92, F93, R45 or treatment by psychological, psychiatric, or mental health specialists). As all participants consented to data linkage, absence of HES records was taken to indicate no SMHC use.

Before November 2007, 74 NEXT STEPS participants (1.5%) received 1–130 outpatient visits, 27 received 1–2 inpatient stays (0.6%), and 18 NEXT STEPS participants had 1-2 day-patient admissions (0.4%).

Between 2007 and 2017, 166 participants (3.4%) received 1–131 outpatient visits. Of these 105 did not receive in/day-patient services. Among those 105 NEXT STEPS participants, 45 had 1 outpatient visit, 15 had 2 outpatient visits, the remaining participants has between 3 and 82 outpatient visits.

Between 2007 and 2017, 141 NEXT STEPS participants (2.9%) received inpatient mental health care. Of these 85 had 1 inpatient stay, 28 had 2 inpatients stays and the rest experienced between 3 and 15 inpatient stays.

Between 2007 and 2017, 132 NEXT STEPS participants (2.7%) received daypatient mental health care. Of these 98 had 1 daypatient stay, 22 had 2 daypatient stays and the rest experienced 3 to 33 day-patient stays Among those 98 with 1 daypatient stay, 67 received no other form of SMHC.

The combinations of care were fairly evenly distributed: 25 experienced between 1 and 5 inpatient and 1 to 5 daypatient admissions between 2007 and 2017; 28 NEXT STEPS participants received between 1 and 131 outpatient visits and 1 to 15 inpatient admissions, and 22 participants received between 1 and 8 inpatient, 1 to 6 daypatient, and 1 to 50 outpatient visits. The least common combination was outpatient (1–19 visits) and daypatient (1–3 admissions) (N = 11).

2.3.2. Need

The 12-item Generalized Health Questionnaire (GHQ-12; Goldberg et al., 1997) measured perceived need (common mental health problems) at age 14, 16, and 25, with a score of 11–19 indicating psychological distress, while a score of 20 or higher signified psychiatric

distress (Baksheev et al., 2011). Participants reporting mental health problems at all three time points were classified as experiencing persistent mental health problems, whereas those reporting problems at some, but not all, time points were classified as occasionally experiencing mental health problems.

Evaluated need was captured through clinical diagnosis in HES, educational indicators (e.g. special educational needs or school reports for emotional problems) and markers of common mental health problem severity (e.g. medical records and self-reports of self-harm, psychosis, substance abuse).

2.3.3. Enabling factors

Due to pseudo-anonymisation detailed geographical indicators (MHS availability, waiting times, referral rates) were unavailable. Geographical indicators included in the analyses were limited to urban/rural classification and broad regions (north, midlands/east, London, south). Enabling factors were assessed via household resources (e.g. vehicle access, parental saving for young people's future educational needs), parental support (e.g. checking homework) and school engagement (e.g. teacher interest). Pre-age-17 interaction with health and social care system was operationalized by SMHC use for common mental health problems, social services or educational welfare involvement for emotional problems and hospital admissions, as General Practitioner (GP) and A&E data prior to November 2007 were not available.

2.3.4. Predisposing factors

Predisposing factors were grouped into demographic, belief-related, and social domains. Demographics included sex, disability/longstanding illness, ethnicity, religion, and primary household language. Beliefs were assessed via a 7-item locus of control (LOC) scale (Lefcourt, 1992) and a measure of adult attentiveness ("teachers do not listen to what I have to say"). Social factors covered: (1) friends (e.g. interaction frequency, exclusion, bullying, online activity); (2) family (e.g. caregiver responsibility, parental disability, family structure, adverse experiences, conflict, and routine); (3) financial stress (e.g. employment, benefits, housing instability, financial strain, access to money, and digital access);

and (4) risk (e.g. truancy, school pressure, vandalism, police contact).

2.3.5. Adult outcomes

The impact of youth common mental health problems and SMHC on adult functioning, wellbeing, and quality of life was assessed. Mental wellbeing at ages 25, 29/30 (COVID-19), and 32 was measured using the GHQ-12, PHQ-2 (depression; Kroenke et al., 2003), GAD-2 (anxiety; Kroenke et al., 2007), and UCLA-3 (loneliness; Hughes et al., 2004). Participants also reported on treatment/medication for depression. Economic functioning included household income, financial difficulties, benefits receipt, and housing tenure. Vocational functioning was based on current and past employment. Social functioning covered relationship status, parenthood, living arrangements, trust, and perceived closeness. Quality of life indicators included self-rated health, disability status, and alcohol/cannabis use.

3. Results

3.1. Co-production analysis plan

While recognizing a broad range of factors that could influence SMHC utilization, throughout the workshops, three themes consistently emerged: (1) perceived and evaluated need, (2) enabling factors, and (3) predisposing factors. These three themes align with the three key areas of focus of the Andersen's Behavioral Model of Healthcare Utilization (Alkhawaldeh et al., 2023; Babitsch et al., 2012) and became the basis of the final analysis plan (Fig. 1). The final analysis plan was adapted to availability of secondary NEXT STEPS data. Details of variables used are presented in the supplementary material (Table supp1).

3.2. Secondary data analysis

3.2.1. Common mental health problems

Sixty-seven percent (N = 3280) of participants reported common mental health problems at least once between ages 14 and 25, and 9.5% (N = 312) received SMHC between 1997 and 2017. Among those
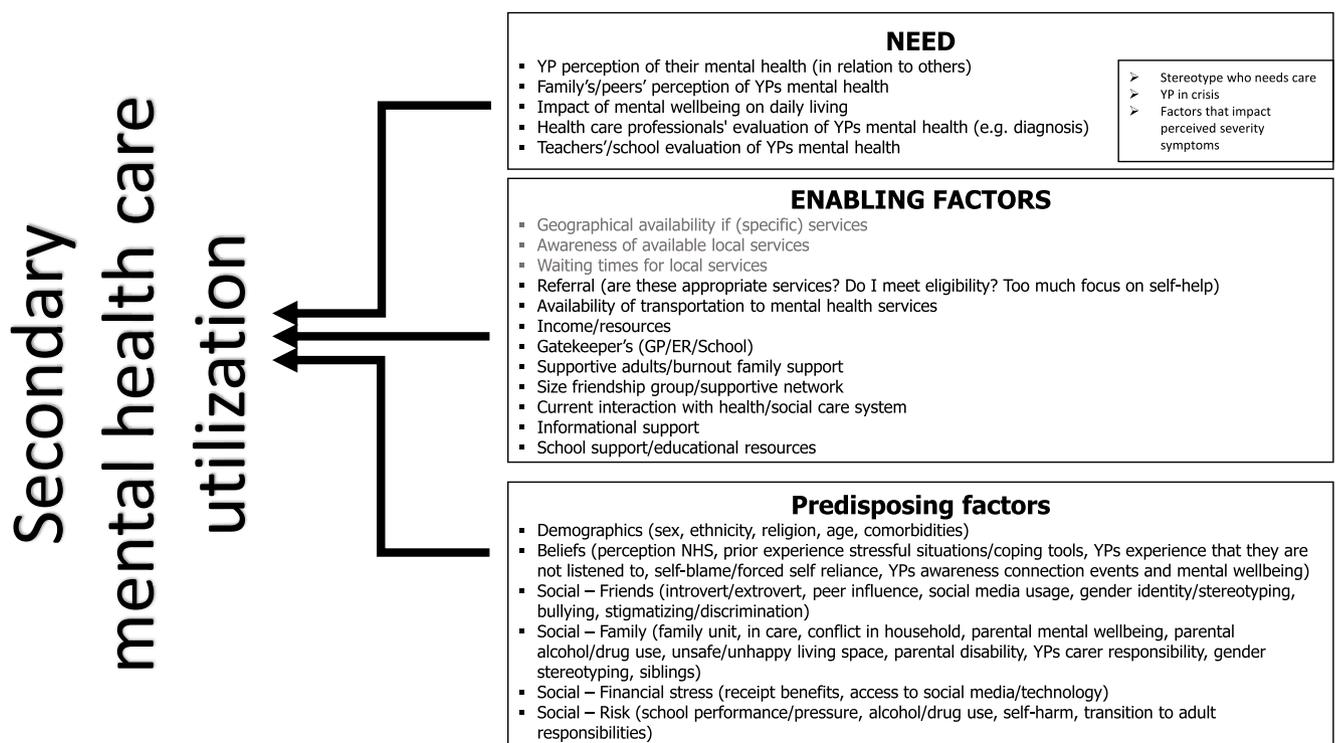

NEED
- YP perception of their mental health (in relation to others)
- Family's/peers' perception of YPs mental health
- Impact of mental wellbeing on daily living
- Health care professionals' evaluation of YPs mental health (e.g. diagnosis)
- Teachers'/school evaluation of YPs mental health

> - Stereotype who needs care
> - YP in crisis
> - Factors that impact perceived severity symptoms

ENABLING FACTORS
- Geographical availability if (specific) services
- Awareness of available local services
- Waiting times for local services
- Referral (are these appropriate services? Do I meet eligibility? Too much focus on self-help)
- Availability of transportation to mental health services
- Income/resources
- Gatekeeper's (GP/ER/School)
- Supportive adults/burnout family support
- Size friendship group/supportive network
- Current interaction with health/social care system
- Informational support
- School support/educational resources

Predisposing factors
- Demographics (sex, ethnicity, religion, age, comorbidities)
- Beliefs (perception NHS, prior experience stressful situations/coping tools, YPs experience that they are not listened to, self-blame/forced self reliance, YPs awareness connection events and mental wellbeing)
- Social – Friends (introvert/extrovert, peer influence, social media usage, gender identity/stereotyping, bullying, stigmatizing/discrimination)
- Social – Family (family unit, in care, conflict in household, parental mental wellbeing, parental alcohol/drug use, unsafe/unhappy living space, parental disability, YPs carer responsibility, gender stereotyping, siblings)
- Social – Financial stress (receipt benefits, access to social media/technology)
- Social – Risk (school performance/pressure, alcohol/drug use, self-harm, transition to adult responsibilities)

Secondary mental health care utilization

Fig. 1. Analysis plan for young people's mental health care utilization.

completing all three GHQ-12 assessments (N = 3143), 15.3% (N = 481) reported persistent common mental health problems; 12.5% (N = 60) of whom used SMHC. In contrast, 27.1 % (N = 852) reported no common mental health problems across the follow-up period.

Among participants with GHQ-12 data at ages 14 and 16, 24% (N = 749) reported common mental health problems at both time points; 2.5% (N = 19) of these accessed SMHC before age 17. Of those with GHQ-12 data at ages 16 and 25, 25.9% (N = 998) reported persistent common mental health problems; 9.9% (N = 99) used SMHC between ages 17 and 25.

3.2.2. SMHC utilization

Among NEXT STEPS participants 6.8% (N = 333) utilized SMHC between age 17 to 25. Of these 10.9% (N = 36) had prior Child and Adolescent Mental Health Services (CAMHS) contact, half of whom self-identified with common mental health problems at age 16.

Overall, 40% (N = 133) of SMHC users reported common mental health problems at age 16, while 17.8% (N = 59) reported no symptoms at age 16, but common mental health problems at age 25. A small proportion (4.2%, N = 14) reported no common mental health problems between age 14 to 25.

CAMHS records were found for 1.8% (N = 86) of the NEXT STEPS participants; 37% (N = 32) also used SMHC after age 17 and 35.8% (n = 19) of those who did not continue SMHC still reported common mental health problems at age 25. Among those who used only adult SMHC, 70.1% (N = 208) reported common mental health problems at age 25 rising to 78% (N = 28) among those with CAMHS and adult SMHC histories.

3.2.3. Next Steps participants affected by the 'missing middle' care gap: Characteristics of those with common mental health problems who did not use MHS

Table 1 presents the demographic characteristics of individuals affected by the 'missing middle' care gap. We further explored differences between those who did not use SMHC services and those who did.

Among those with persistent common mental health problems, non-SMHC users (N = 420) were less likely than users (N = 60) to be female ($\chi^2 = 13.72$, $p < 0.001$), live in single-parent households ($\chi^2 = 7.83$, $p = 0.005$), have caring responsibilities ($\chi^2 = 5.26$, $p = 0.022$), report cannabis use ($\chi^2 = 7.47$ $p = 0.024$), report antisocial behaviour ($\chi^2 = 9.84$, $p = 0.002$), report bullying ($\chi^2 = 8.29$, $p = 0.004$), and more likely to report good relationship with their parents ($\chi^2 = 6.13$, $p = 0.047$).

Among those with occasional common mental health problems, non-users of SMHC (N = 1696) were less likely than users (N = 114) to be disabled ($\chi^2 = 27.28$, $p < 0.001$), live in single-parent households ($\chi^2 = 8.45$, $p = 0.004$), have caring responsibilities ($\chi^2 = 5.48$, $p = 0.019$), report arguments with parents ($\chi^2 = 22.35$, $p < 0.001$), report bullying ($\chi^2 = 11.11$, $p < 0.001$), and more likely to report above average school grades, ($\chi^2 = 23.46$, $p < 0.001$), higher household income ($\chi^2 = 8.38$, $p = 0.015$), sufficient spending money ($\chi^2 = 7.70$, $p = 0.006$).

3.2.4. Factors impacting utilization of SMHC

Logistic regression models were run on data with imputed missing values to assess how predisposing, enabling, and need factors influenced young people's use of SMHC. Separate models were run for each factor type (see Supplementary Tables Supp2–Supp11), and significant variables from each were included in a final combined model. Results from 50 imputed datasets were pooled using Rubin's rules (Rubin, 2004) and are shown in Table 2 and Supplementary Table Supp11b.

The strongest predictor of SMHC use was a common mental health diagnosis before the age of 17. Interaction with health care system at age 16 significantly predicted use of SMHC between age 17 to 25. Consistent with prior research (Thompson et al., 2016), women were more likely than men to use SMHC for common mental health problems.

Table 1

Demographic characteristics of Next Steps participant affected by the 'missing middle' care gap.

	Persistent common mental health problems N = 420	Occasional common mental health problems N = 1696
Sex (female)	279 (66.4 %)	885 (52.2 %)
Young person with disability/ longstanding illness	18 (4.3 %)	49 (2.9 %)
Young person is a carer	42 (10 %)	202 (11.9 %)
Ethnicity		
White	340 (80.7 %)	1324 (78.1 %)
Mixed/other	22 (5.2 %)	112 (6.6 %)
Indian	14 (3.3 %)	85 (5.0 %)
Pakistani	11 (2.6 %)	64 (3.8 %)
Bangladeshi	13 (3.1 %)	36 (2.1 %)
Black	20 (4.8 %)	75 (4.4 %)
English main household language	387 (92.1 %)	1552 (91.5 %)
Religion		
None	148 (35.2 %)	563 (33.2 %)
Christian	218 (51.9 %)	902 (53.2 %)
Muslim	35 (8.3 %)	125 (7.4 %)
Other	19 (4.5 %)	106 (6.3 %)
Young person is a single child	92 (21.9 %)	348 (20.5 %)
Single parent household	97 (23.1 %)	417 (24.6 %)
Disabled main parent	91 (21.7 %)	332 (19.6 %)
Disabled second parent	65 (15.5 %)	359 (21.2 %)
Household income		
<£20800	97 (23.1 %)	141 (24.4 %)
£20800 - £36399	119 (28.3 %)	476 (28.1 %)
>£36399	186 (44.3 %)	806 (47.5 %)
Young person reports ever having proper alcoholic drink at age 16	372 (88.6 %)	1464 (86.3 %)
Young person reports ever trying cannabis at age 16	176 (41.9 %)	626 (36.9 %)
Young person reports getting above average grades	281 (66.9 %)	1204 (71 %)
Parent reports young person's interaction with police	34 (8.1 %)	148 (8.7 %)

3.2.5. NEXT STEPS participants' wellbeing from age 25 to 32

Mental health issues affect not only wellbeing but multiple domains of life. Table 3 shows the broader impact on the adult life of the 480 NEXT STEPS participants who persistently reported common mental health problems (age 14, 16, 25); 12.5% (n = 60) of whom used SMHC. The effects of occasional experience of common mental health problems on adult life are detailed in Supplementary Table Supp12.

Descriptive statistics in Table 3 and Table supp12 suggest that adults with common mental health problems who used SMHC had different vocational, social, economic outcomes and overall quality of life compared to those with common mental health problems who did not use SMHC. It should be noted that as the SMHC users groups were relatively small, these findings provide preliminary insights that should be interpreted with caution.

4. Discussion

This study examined SMHC use among young people using linked NEXT STEPS data, with a particular focus on understanding which factors influence engagement and the experiences of those affected by the 'missing middle' care gap. By integrating a co-produced young people's SMHC Utilization analysis plan into our secondary data analysis, we were able to situate individual service use within broader systemic, social, and familial contexts, highlighting both professional and personal influences on SMHC use. Until now, much of the research has focused on the experiences of young people already on waitlists or

Table 2
Young people's SMHC utilization (N = 4895).

	estimate	Standard error	OR	95 % CI	
NEED					
Before 17 received common mental health diagnosis	2.62	0.25	13.74	8.41	22.42
GHQ-12					
No symptoms (=reference)					
Psychological-level symptoms	0.18	0.17	1.20	0.86	1.67
Psychiatric-level symptoms	0.55	0.21	1.73	1.15	2.62
Enabling Factors					
Before 17 utilized secondary care for CMHP	−0.97	0.35	0.38	0.19	0.75
Admissions to hospital between age 1 to 16 (reference = 0)					
1	0.26	0.18	1.30	0.91	1.85
2	0.28	0.24	1.32	0.83	2.12
3	0.31	0.40	1.36	0.62	2.99
4+	0.63	0.28	1.88	1.08	3.25
Predisposing Factors					
Sex (female)	0.66	0.14	1.93	1.47	2.55
Young person is disabled/longstanding illness	0.91	0.21	2.48	1.65	3.75
Locus of control - external (no = reference)					
Somewhat	0.22	0.17	1.25	0.89	1.74
Yes	0.80	0.23	2.23	1.42	3.49
Young person is excluded by friend- group	0.33	0.15	1.39	1.04	1.87
Parental reports young person being bullied	0.87	0.21	2.39	1.58	3.60
Household violence between age 1–16	0.68	0.18	1.97	1.39	2.81
Main Parent employment Employed (reference)					
Unemployed	0.83	0.34	2.29	1.18	4.47
Not expected to work	−0.005	0.16	0.995	0.73	1.36
Young person reports anywhere is better than home	0.31	0.15	1.36	1.02	1.83

Null deviance = 2422 df = 4894; Residual deviance 1948 df = 4876; AIC = 1986; Log likelihood = −974.

receiving mental health services, a minority of those experiencing common mental health problems, while the voices of the majority, those affected by the 'missing middle' care gap, have remained largely unheard. Understanding both groups is critical to accurately assess the mental health needs of young people and explore alternative support strategies that could be applied in the context of the current mental health crisis.

Receiving a common mental health diagnosis before age 17 emerged as the strongest predictor of SMHC use, with frequent hospitalizations, long-term conditions or disabilities also associated with higher utilization. This suggests that SMHC use is driven both by objectively assessed care needs and by subjective factors such as healthcare professionals' perceptions, judgments, and the contexts in which care decisions are made, supporting the Goldberg-Huxley model (Huxley, 1996; Hall, 2024), which emphasizes clinically evaluated symptom recognition as a key step in accessing treatment pathways. SMHC use increased with the severity of distress: among those reporting psychological-level distress at age 16, 6.8% (N = 86) used SMHC between ages 17 and 25, while 13.6% (N = 47) of those with psychiatric-level distress using SMHC over the same period.

Despite these associations, many young people experiencing distress remained outside the formal mental health care system, reflecting what has been described as the 'missing middle' care gap. Capacity constraints within SMHC have increasingly shifted responsibilities to professionals in education and primary care, placing considerable strain on these under-resourced sectors (Brown et al., 2025), and contributing to

Table 3
The effect of young people's mental health and use of SMHC on adult life.

	Age 25		Age 30 Covid Pandemic		Age 32	
	No MHS N = 420	Yes MHS[a] N = 60	No MHS N = 301	Yes MHS[a] N = 43	No MHS N = 338	Yes MHS[a] N = 47
Economic Functioning						
Income <£20800	57.2 %	70.2 %	66.4 %	>75 % α	41.2 %	52.5 %
Financial difficulties	11.4 %	28.3 % α	6.1 %	<25 %	9.7 %	<22 %
Receipt of benefits	19.1 %	50.8 % α		α	31.7 %	43.5 % α
Tenure						
Own	16.2 %	<17 %	54 %	34.1 %	55 %	34 %
Rent	44.5 %	65.0 %	37.5 %	>50 %	32.5 %	>45 %
Rent-free with family/friends	39.3 %	<17 %	8.4 %	<25 %	12.6 %	<22 %
Social Functioning						
Currently cohabitating	36.2 %	43.3 %	64.6 %	63.4 %	61.7 %	61.7 %
Has children	15.0 %	33.3 % α	31.8 %	38.1 %	38.6 %	40.4 %
Living with parents	34.3 %	20.0 % α	22.4 %	<25 %	12.6 %	<22 %
Has somebody to trust- very true			79.4 %	70.3 %	79.3 %	65.9 % α
Trust scale (1–11)			5.76 ± 2.0	4.54 ± 2.3 α	6.57 ± 2.0	5.36 ± 2.8 α
Has nobody to feel close to – not true at all			78.2 %	75.7 %	79.9 %	72.1 %
Vocational Functioning						
Currently employed	82.1 %	56.7 % α	83.3 %	56.8 % α	89.5 %	78.7 % α
Ever employed	95.5 %	81.7 % α			>90 %	>78 % α
Ever went university	61.2 %	33.3 % α			61.4 %	57.8 %
Quality of Life						
General health		α		α		α
Excellent/Very good	56.9 %	25.0 %	52.6 %	29.5 %	44.2 %	~22 %
Good	28.3 %	20.0 %	33.6 %	38.6 %	36.9 %	~30 %
Fair/Poor	14.8 %	55.0	13.8 %	31.8 %	18.9 %	45.5 %
Whether feels things they do are worthwhile (1–11)					7.52 ± 2.3	6.51 ± 2.7 α
Selfharm	9.4 %	50.0 % α				
Alcohol abuse (AUDITC[b])	63.1 %	50 % α			38.8 %	35.0 %
Never drinks alcohol	14.5 %	28.3 % α	27.6 %	36.8 %	19.9 %	31.8 %
Cannabis use past yr	39.5 %	42.9 %			10.9 %	25.6 % α
Ever tried cannabis	62.7 %	72.9 %			66.7 %	69.6 %
Self-identifies with Longstanding illness	25.0 %	68.3 % α			38.1 %	72.7 % α
Classifies under 2010 disability equality act	14.3 %	61.7 % α			24.0 %	57.4 % α

Table 3 (continued)

	Age 25		Age 30 Covid Pandemic		Age 32	
	No MHS N = 420	Yes MHS[a] N = 60	No MHS N = 301	Yes MHS[a] N = 43	No MHS N = 338	Yes MHS[a] N = 47
Mental Wellbeing						
GHQ-12						α
No symptoms		α	15.2 %	<25 %	20.2 %	<22 %
Psychological-level symptoms	71.9 %	46.7 %	59.9 %	51.2 %	61.3 %	~40 %
Psychiatric-level symptoms	28.1 %	53.3 %	24.9 %	>30 %	18.5 %	41.9 %
Ever told by doctor that they suffer from depression					44.3 %	>78 % α
Age first diagnosed					23.12 ± 5.3	17.81 ± 4.6 α
Currently taking meds for anxiety/depression[c]			12.0 %	25.6 % α		
Current treatment for depression[c]					20.7 %	41.9 % α
Likely major depressive disorder (PHQ)			26.6 %	31.7 %	26 %	48.8 % α
Likely generalized anxiety disorder (GAD)			33.0 %	46.3 %	38.3 %	55 % α
Feeling lonely (UCLA)			41.4 %	46.3 %	20.1 %	34.9 % α

Statistical-Disclosure-Control does not allow for groups smaller than 10 individuals thus an approximation is provided where cells represent smaller groups.

α = significant difference between 2 groups as measured with χ^2-test with significance level of $P < 0.05$.

[a] yes MHS means participant's HES/MHSDS record indicates inpatient/outpatient/day-patient experience between age 17–25.

[b] Males-cutoff 4; females-cutoff 3 (Higgins-Biddle and Babor, 2018).

[c] self-report of current treatment and medication use.

growing dissatisfaction with care quality among young people (Appleton et al., 2022). High SMHC-referral thresholds, determined by local resource availability (Brown, 2018; Department of Education, 2018), further restrict access, leaving many young people in England without the support they need (Griffin et al., 2022).

To understand the experiences of young people overlooked by the SMHC system, we examined the characteristics of those affected. The young people affected by the 'missing middle' care gap typically exhibited traits associated with lower use of SMHC (Wendt and Shafer, 2016), including strong academic performance, absence of noticeable behavioural issues, and a higher likelihood of being male compared to SMHC-users. In contrast, NEXT STEPS participants with weaker support networks were more likely to use SMHC, aligning with US studies that found an association between social support availability and reduced reliance on SMHC among individuals living with common mental health problems (Andrea et al., 2016; Maulik et al., 2009). A recent scoping review by Lynch et al. (2023) highlighted that informal support systems can both facilitate and hinder access to SMHC for young people with common mental health problems.

Notably, those who used SMHC before age 17 were less likely to transition to adult services, highlighting persistent transition-gaps between CAMHS and adult services (Broad et al., 2017). Though efforts

have focused on identifying gaps (Hill et al., 2019), there remains significant opportunity for UK Trusts to implement effective improvements in transitional pathways.

Consistent with prior international research (Kleinberg et al., 2013; McWilliams et al., 2006), which showed that individuals with CMHP and external LOC tend to believe that mental health care professionals can influence their outcome, making them more receptive to engage with SMHC, our findings also indicated higher SMHC use among NEXT STEPS participants with an external LOC. Parental unemployment emerged as another predictor of SMHC use, highlighting the complexity of family dynamics and socio-economic status in mental health service inequalities (Wistow et al., 2015), a largely unexplored area of research (Economou et al., 2008), which deserves further attention in future research.

In adulthood, NEXT STEPS participants who used SMHC were more likely to report disability and less likely to be employed. However, with the available data it was difficult to determine whether poor mental health limited employment, or whether identification with disability hindered workforce participation. Previous research (Driessens et al., 2020; Boardman and Rinaldi, 2021) consistently indicates that individuals who receive SMHC are more likely to be unemployed. Despite expressing a desire for vocational rehabilitation, most do not receive the appropriate support.

Young people using SMHC were more likely to report adult loneliness, lower life satisfaction, and reduced sense of purpose, suggesting that while SMHC addresses acute needs, it may not sufficiently support long-term wellbeing.

While the findings are informative, several limitations should be noted. Young people affected by the 'missing middle' care gap were more likely to live in household with higher income levels which could provide them access to alternative services in private sector. In this case utilization of SMHC in HES and MHSDS will not give a full picture of total MHS use (Goddard and Smith, 2001). The imputation of a dataset with this many potential predictor variables is complicated, it limited our ability to explore interactions among predictors, potentially underestimating complex socio-demographic effects. Due to the small sample bias from which logistic regression models suffer, as a result of maximum likelihood estimation (Allison, 2012), we had to pool low-frequency events of inpatient stays, day-patient visits, and outpatient services into a single SMHC outcome, and thus were unable to capture the heterogeneity within the group of NEXT STEPS participants accessing SMHC. In addition, we could not include A&E Care pathway to SMHC in our analysis because A&E records for NEXT STEPS participants were only available from April 1, 2007 to March 31, 2017. It is worth noting that 107 participants had between 1 and 15 A&E visits for psychiatric reasons between November 1, 2007 and March 31, 2017, and that there was a significant association between these A&E attendances and utilization of SMHC ($\chi^2 = 345.75$, p < 0.001).

5. Conclusion

Common mental health problems were frequently observed in young people, yet utilization of SMHC tended to be constrained to those for whom common mental health problems significantly affected daily life and who had limited informal support from family and peers. However, even among those who use SMHC, broader needs often went unmet. SMHC-users faced poorer financial, social, and vocational outcomes and lower quality of life in adulthood compared to non-users. These findings underscore the need to rethink our youth mental health care approach, not only to support those affected by the 'missing middle' care gap, whose symptom expression does not meet specialist mental health service referral guidelines yet who still experience significant distress, but also to more effectively address the wider needs of those already within the youth mental health care system.

CRediT authorship contribution statement

Corine Driessens: Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Kim Markham-Jones:** Writing – review & editing, Project administration, Investigation, Formal analysis, Data curation, Conceptualization. **Nicole Davenport:** Writing – review & editing, Formal analysis, Data curation, Conceptualization. **Mahdi Hassan:** Writing – review & editing, Formal analysis, Data curation, Conceptualization. **Shahrbano Iqbal:** Writing – review & editing, Formal analysis, Data curation, Conceptualization. **Friday Skelton:** Writing – review & editing, Formal analysis, Data curation, Conceptualization. **Fiona Lacey:** Writing – review & editing, Supervision, Resources, Project administration, Funding acquisition, Conceptualization. **Peter WF. Smith:** Writing – review & editing, Methodology, Funding acquisition, Conceptualization.

Ethics approval

Funding statement

Declaration of competing interest

The authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jpsychires.2026.01.034.

Data availability

This study uses data from the Longitudinal Study for Young People in England also known as NEXT STEPS, which is available from the UK Data Archive (http://www.data-archive.ac.uk/; University College London, UCL Institute of Education, Centre for Longitudinal Studies. (2025). *Next Steps: Sweeps 1–9, 2004–2023*. [data collection]. 18th *Edition*. UK Data Service. SN: 5545, DOI: http://doi.org/10.5255/UKDA-SN-5545-10). The data was linked to Hospital Episodes Statistics (NHS Digital, University College London, UCL Institute of Education, Centre for Longitudinal Studies (2025) *NEXT STEPS: Linked Health Administrative Datasets (Hospital Episode Statistics), En-*gland, 1997 – 2023: Secure Access [provided in 2023]*3rd edition*. UK data service SN:8681, DOI: http://doi.org/10.5255/UKDA-SN-8681-3) and cohort data collected during the COVID pandemic (University College London, UCL Institute of Education, Centre for Longitudinal Studies (2024) *COVID-19 Survey in Five National Longitudinal Cohort Studies: Millennium Cohort Study, NEXT STEPS, 1970 British Cohort Study and 1958 National Child Development Study, 2020–2021 [provided in 2023]* 4th *edition*. UK Data Service. SN8658, DOI: http://doi.org/10.5255/UKDA-SN-8658-4)

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