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Transitioning Youth into Adult Mental Health and Addiction Services: An Outcomes Evaluation of the Youth Transition Project

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Corresponding Author:	Mario Cappelli, Ph.D(C) Children's Hospital of Eastern Ontario Ontario, CANADA
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	Children's Hospital of Eastern Ontario
Corresponding Author's Secondary Institution:	
First Author:	Mario Cappelli, Ph.D(C)
First Author Secondary Information:	
Order of Authors:	Mario Cappelli, Ph.D(C)
	Simon Davidson, M.B., B.Ch., F.R.C.P (C)
	Jakub Racek, M.A.
	Stephanie Leon, B.S
	Melissa Vloet, Ph.D (C)
	Karen Tataryn, M.S.W
	Katharine Gillis, M.D., F.R.C.P.(C)
	Alison Freeland, M.D., F.R.C.P.(C)
	Jenny Carver, M.S.W
	Smita Thatte, M.D., F.R.C.P.(C)
	Joanne Lowe, M.S.W
Order of Authors Secondary Information:	
Abstract:	The Youth Transition Project was designed to provide youth with mental health and addiction issues with individualized transitional care plans as they transition from Child and Adolescent Mental Health Services (CAMHS) to Adult Mental Health Services (AMHS). Over an 18 month period, a total of 127 (59.1%) youth were transitioned and seen by an AMHS provider, 41 (19.1%) remained on a waitlist for services, and 47 (21.8%) cancelled services. The average time to transition was 110 days (SD=100). Youth exhibited a wide range of diagnoses; 100% of the population was identified as having serious psychiatric problems. Findings demonstrate that the Youth Transition Project has been successful in promoting continuity of care by transitioning youth seamlessly from youth to adult services. Inconsistencies in wait times and service delivery suggest that further model development is needed to enhance the long-term sustainability of the Youth Transition Project.

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Cappelli, M.[1,2,3], Davidson, S.[1,2,3], Racek, J.[1], Leon, S.[2,3], Vloet, M.[2,3] , Tataryn, K.[1,2,3], Gillis, K.[3,4], Freeland, A.[3,5], Carver, J.[6], Thatte, S. [5], Lowe, J.[7]

Keywords: *shared care management; emerging adults; health service outcomes*

[1] Children's Hospital of Eastern Ontario, 401 Smyth Rd, Ottawa, ON K1H 8L1, Canada

[2] CHEO Research Institute, 401 Smyth Rd, Ottawa, ON K1H 8L1, Canada

[3]University of Ottawa, 75 Laurier Avenue East, Ottawa, ON K1N 6N5, Canada

4 The Ottawa Hospital, 501 Smyth Rd, Ottawa, ON K1H 8L6, Canada

[5] Royal Ottawa Mental Health Centre, 1145 Carling Ave, Ottawa, ON K1Z 7K4, Canada

[6] Stella's Place, 45 Bowden St, Toronto, ON M4K 2X3, Canada

[7] Youth Services Bureau, 2675 Queensview Dr, Ottawa, ON K2B 8K2, Canada

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Abstract

The Youth Transition Project was designed to provide youth with mental health and addiction issues with individualized transitional care plans as they transition from Child and Adolescent Mental Health Services (CAMHS) to Adult Mental Health Services (AMHS). Over an 18 month period, a total of 127 (59.1%) youth were transitioned and seen by an AMHS provider, 41 (19.1%) remained on a waitlist for services, and 47 (21.8%) cancelled services. The average time to transition was 110 days (SD=100). Youth exhibited a wide range of diagnoses; 100% of the population was identified as having serious psychiatric problems. Findings demonstrate that the Youth Transition Project has been successful in promoting continuity of care by transitioning youth seamlessly from youth to adult services. Inconsistencies in wait times and service delivery suggest that further model development is needed to enhance the long-term sustainability of the Youth Transition Project.

Introduction

Mental health problems experienced by children, youth and young adults are increasing dramatically, and epidemiologists estimate increases in incidence rates of at least 50% by 2020.[1,2] In Canada, at least 70% of mental health problems have an age of onset occurring in childhood, adolescence or young adulthood.[3]

Available evidence indicates that youth who are engaged in child and adolescent mental health services (CAMHS) and require continued services in the adult mental health system are not well supported as they prepare to transition.[4-7] A lack of integration and effective collaboration between systems has been noted in Canada, the US, the UK, and Australia.[6,8-10] Moreover, research evidence clearly demonstrates that the period of transition from youth to adulthood offers a unique opportunity to impact the lifetime trajectory of mental illness.[8,11]

As transition aged youth (aged 16-25 inclusive) move into adulthood, those with serious mental health conditions often have poor functioning and high rates of homelessness (30%), arrests (60%), school dropout (42%), and unemployment.[12] At present, the most common outcomes for youth transitioning from CAMHS to Adult Mental Health Services (AMHS) include disengagement from services and crisis-driven reconnection in the future. Unfortunately, youth who disengage from services during this transition have a significantly higher risk of developing more enduring mental health problems.[13-16]

A significant barrier to successful transition from CAMHS to AMHS is the mismatch between institutional transitions at the systems level to developmental transitions at the individual level.[7] At the systems level, the transition can be regarded as an administrative event.[17] This process is often informed by bureaucratic and legal variables that are intended to direct service delivery and eligibility and assist in the management of service capacity and limitation.[7,18] An example of the institutional transition process is “aging out”, referring to

when a change in status renders an individual ineligible for a service, leading to their eventual displacement from that service environment.[18] With no systematic models in place, mental health professionals may struggle to find appropriate adult services for youth in their care. While institutional transitions are highly effective from a management perspective, they also restrict access to services.[7]

The individual level refers to the developmental transition that occurs concurrently with the institutional transition. This transition is directed by a maturational process and includes a number of social changes intended to increase competence. Key developmental periods exist during this transition, beginning with the onset of adolescence. During this time, changes in emotional, physiological, psychosocial, and personal growth represent efforts to assume more adult-based competencies.[19] Adolescence is also associated with increased risk-taking behaviors as a result of changing biological, biopsychosocial, and psychological factors that affect development.[20] Throughout this time, psychological morbidity is higher with a greater likelihood of developing more serious disorders, such as psychosis.[21] In addition to this heightened risk, adolescence is also a time when co-occurring disorders, such as substance abuse, are most likely to emerge.[6]

The next developmental stage is emerging adulthood. This is characterized as a distinct period of development occurring between adolescence and adulthood, experienced by young people in industrialized societies. During emerging adulthood, the developmental competencies that began to form in adolescence are continued.[22] Optimal development in this stage is regarded as a balance between having both autonomy from and relatedness to the family of origin, and successful transitions are marked by both capacities.[23, 24]

In many respects, the CAMHS/AMHS transition is a significant life event in the world of the young person and it must be recognized as a part of a wider transition from dependent child to independent adult.[25] The mental health system, including hospital and

community based care providers, needs to recognize the significance of various transitions in the lives of youth and embed appropriate supports for such factors into its system.

The most common outcome of poor transitions between CAMHS and AMHS is that young people with enduring mental health concerns and continuing needs disengage from service. Estimates suggest that this occurs in as many as 60% of known cases,[26] with more vulnerable youth disengaging at higher rates. Disengagement is also more likely in young people, since they are typically less likely to collaborate with clinicians about treatment-related issues during both the pre-transition and transition phases.[27] This disengagement often inspires crisis-driven reconnection with the mental health system that proves costly for the individual as well as for the system. To reduce the rate of disengagement during transitions in care, research indicates that it is necessary to have established formal transition services from child to adult systems of care in place and that transitional models of care should be focused on shared responsibilities to achieve effective transition.[9, 28]

A *shared management model*[29] was implemented to address the service gap in transitional care. It is characterized by a flexible, collaborative approach whereby youth and adult providers from hospitals and communities work together with youth and families to develop individualized transitional care plans that promote coordination and continuity of care between CAMHS and AMHS. This model of transitional care involves three key components: (1) collaboration and contributions of partner providers through an advisory committee composed of hospitals and agencies; (2) a transition coordinator who acts as system navigator to help prepare youth and families for transition, follows through with care plans by coordinating referrals, and ensures that youth are seen in a timely manner and remain engaged in the clinical services that meet their mental health needs; and (3) a research team to monitor and assess the implementation of the model.[30] The model allows the coordinator to openly communicate with all shared care partners with the objective to provide services when the need presents itself. AMHS providers can also be notified in advance of

potential referrals allowing for better service planning and more seamless linkages between systems. Youth can be reassured that the referral is initiated and that important information can be shared between providers, if necessary.

The objective of this paper is to determine whether a transitional program based on the shared management model (referred to as the Youth Transition Project) is effective in maintaining continuity of care for youth transitioning from CAMHS to AMHS. Data describing demographics of the sample and the number of youth who completed engagement to AMHS, cancelled services, or remained on waitlists for services are presented. An examination of key facilitators and barriers to successful transition on both the individual and systems level are also presented.

Method

Sample

Youth eligible for the study were defined as young people between 16 and 24 years of age residing in Ottawa, Ontario, Canada, a metropolitan city with a population of 1,100,300 of which 13.1% are visible minorities and 10.8% have low income.[31] To be referred to the program, youth had to be actively receiving care from a project partner agency and have mental health and/or addictions problems. Youth's current CAMHS providers had to agree to be involved in developing the transitional plan of care and to participate actively with the transition team. The age of participants enrolled in the program ranged from 16 to 20 years (M=17.63; SD=0.78). Youth were predominately female (n=88; 64.7%) and English speaking (n=125; 79.1%), with the remaining French (n=19; 12.0%) and English-French bilingual (n=14; 8.9%).

Materials

The study used a set of tracking tools, intake procedures, and standardized questionnaires to assess (1) the transition process, (2) youth's mental health needs, (3)

youth's individual needs, and (4) youth's transition-based needs, strengths and service planning.

Mental Health Care Service Tracking

Youth tracking tools were developed for the purpose of this study based on modifications from Singh et al. TRACK measures.[7] Youth were tracked at specific time points during their transition: : (1) at the time of referral to the program, (2) during the initial assessment with the coordinator, and (3) following transition to AMHS (if completed). Data was collected at varying times points for individual youth depending on where they were in the transition process. Data collected included demographic and diagnostic information, referral details regarding service needs of youth, and transition details surrounding youth's attendance with AMHS providers.

Ontario Common Assessment of Need-Self (OCAN-Self)

The OCAN-Self[32] is a self-report indicator of mental health, functioning, and social needs. Information collected represents youth's view of their current life situations. Items are scored on three levels: (1) No Need: this area is not a serious problem for me at all, (2) Met Need: this area is not a serious problem for me because of the help I am given, (3) Unmet Need: this area remains a serious problem for me despite any help I am given. Scores are not aggregated but individual needs can be evaluated based on each of 24 dimensions. The OCAN is a slightly modified version of the Camberwell Assessment of Need (CAN),[33] a standardized measure assessing need for care that has good test-retest reliability for patients ($r = .78$) and staff ($r = .71$).

Global Appraisal of Individual Needs Short Screener (GAIN-SS)

The GAIN-SS[34] is a 27-item self-report measure used to screen for mental health and addictions problems. It is divided into four subscreeners: Internalizing Disorder, Externalizing Disorder, Substance Disorder, and Crime/Violence. Scores are rated on a 4-point scale related to the frequency of symptoms over the past year. Participants are asked,

"Please tell us the last time you had this problem": (1) in the past month, (2) 2 to 12 months ago, (3) 1 or more years ago, (4) never. The GAIN-SS has high internal consistency (Cronbach's alpha = .96) and excellent discriminant validity with 90% sensitivity and 92% specificity.

Adult Needs and Strengths Assessment for Transition to Adulthood (ANSA-T)

The ANSA-T[35] is a 74-item assessment tool designed to provide a profile of both the needs and strengths of the individual and family. The assessment is completed by the care provider after the initial intake interview and is separated into sections based on needs and strengths. Each item is rated on a 4-point scale, with needs based on levels of severity: (1) act now/intensive, (2) act, (3) watch/prevent, and (4) no evidence, and strengths based on prominence: (1) centrepiece, (2) useful, (3) identified, and (4) not yet identified. The reliability of the ANSA ranges from .75 to .90.

Procedure

Participants were tracked over the course of their transition from CAMHS to AMHS at three separate time points:

Time 1—Referral to the program: CAMHS providers contacted the transitions coordinator to refer youth to the Youth Transition Project. All referrals made were assessed by the transitions coordinator for program eligibility and were all accepted for enrolment in the program. If necessary, a Clinical Case Review could be requested if eligibility was uncertain, however such requests were not made as the coordinator had no issues determining eligibility for the sample of youth in the program. The coordinator completed a tracking measure to maintain records of all youth referred to the program. The shared management model ensures that all parties involved are kept informed and are given the opportunity to provide input regarding potential services for youth (e.g. referring CAMHS providers can suggest appropriate services based on their knowledge of youth's problems).

Time 2—Intake with the transitions coordinator: If the referral was considered appropriate, the coordinator called the youth and informed them that the referral had been received and provided details about the project and the service. Youth who agreed to participate had the opportunity to review and sign a consent form. Participants were also informed about the study, told that their participation was completely voluntary and that their decision to participate or decline would not affect the care they received. The coordinator completed an intake assessment and met with youth for additional sessions, if necessary, to identify needs and goals for transitions. During the intake assessment the youth completed the GAIN-SS and OCAN–Self, and the coordinator completed the ANSA-T and the tracking tools. Needs were identified and the coordinator provided on-going management and coordination to assist youth in their transition.

Time 3—Transition to AMHS: The transitions coordinator helped link services for youth by contacting appropriate AMHS providers and facilitated communication between CAMHS and AMHS. AMHS project partners consisted of general hospitals (English and French speaking), mental health centres, community youth services agencies, and substance abuse treatment centres. Youth could also be referred to non-project partner providers comprised of community health centres, anxiety groups, and private psychologists. When referring to a resource, special consideration was taken to best understand the type of service previously offered by CAMHS and the impact it had on youth. The intensity of symptoms varied between youth with these differences in severity resulting in more specialized services for some youth and not others. For example, if youth were on medication and fairly stable, the family physician could follow medication management and a non-project partner could provide counselling for the youth. Moreover, if the waitlist for services from a project partner was too long, youth could be referred to other resources while waiting for services. Youth could request community services if they believed that they had progressed considerably and wanted to detach themselves from hospital services. When presenting problems could not be

addressed by a partner provider alone, referrals to both project partners and non-project partners were made. The coordinator assisted youth in accessing services and worked to integrate those services. Clinical case reviews were called if the coordinator was faced with highly complex youth and required assistance from partners in referring youth to appropriate AMHS. AMHS providers unable to accept immediate referrals placed youth on waitlists for services. Youth would remain on waitlists until AMHS providers could provide services. Transitions were considered complete following youth's initial appointment with AMHS.

Data collection

The transitions coordinator began assessing youth as of June 2011 and completed tracking forms and questionnaire measures at the previously mentioned points of contact. The Youth Transition Project is an on-going program; data collected until December 2013 is presented in this paper. Research Ethics Board approval was obtained to acquire and analyse the data collected by the transitions coordinator.

Analysis

Data were entered into SPSS software and descriptive statistics were produced. ANOVA and chi-square tests were used to explore which variables acted as facilitators or barriers to successful transition. Variables examined included those related to demographic and clinical characteristics of youth, program specific factors related to service delivery, and characteristics of AMHS providers.

Results

CAMHS to AMHS Transition

A total of 215 youth were seen by the transitions coordinator over an 18 month period. Of these, 127 (59.1%) youth completed their transition and were seen by an AMHS provider. In all, 41 youth (19.1%) had yet to transition and remained on a waitlist for AMHS. The remaining 47 (21.8%) youth cancelled services (declined further services, did not return

phone calls, or moved away) and did not complete their transition: 16 (7.4%) youth cancelled services after being seen by the coordinator while 31(14.4%) youth cancelled after being referred to AMHS (See Figure 1 for distribution of youth).

From the transitions coordinator's initial assessment to the date of youth's first appointment with AMHS, the average length of time to transition was 110 days (*SD=100; Mdn=81; min=1, max=532*). A one-way ANOVA revealed that transition wait times significantly differed across program years, F (2, 123) =5.20, p=.007. Tukey HSD post-hoc comparisons showed that transition times in the year 2011 (M=134.12, SD=99.90; n=56) were significantly longer than those in 2012, p=.018 (M=124.69, SD=117.52; n=56) and 2013, p=.014(M=68.62, SD=52.03; n =15), revealing that transition wait times decreased over the course of the program (See Figure 2).

Diagnoses

Youth referred to the program presented with various mental health disorders and other problems (See Table 1). The majority of youth had a comorbid disorder (64.2%; n=138), 20.9% (n=45) had a concurrent disorder, 9.3% (n=20) had a dual diagnosis, and 5.6% (n=12) had one disorder. Family history of mental illness was common among youth (49.5%; n=109); 43.2% (n=95) of youth's mothers had a mental illness, 33.2% (n=73) of fathers, and 22.7% (n=50) of siblings. The majority of youth (70.3%; n=71) were currently on medication, and 18.5% (n=15) had other health conditions aside from their mental illness. At the time of initial referral, 78.7% (n=133) of youth lived with their parents, 6.5% (n=11) in shelters or were homeless, 5.9% (n=10) on their own, 4.1% (n=7) in group homes, 2.4% (n=4) with relatives or friends, 1.8% (n=3) with a grandparent, 0.6% in foster homes (n=1), and 14.1% (n=31) of youth were involved with a child welfare agency.

Problems and Needs of Youth

During the intake interview with the transitions coordinator (Time 2), youth completed two self-report questionnaires, the GAIN-SS (64.2%, n= 86) and the OCAN-Self

(59.4%, n= 82). On the GAIN-SS, youth reported scores falling in the moderate to high range for internalizing disorders (61.5%; n=85), externalizing disorders (58.7%; n=81), substance disorders (39.9%; n=55) and crime/violence (28.3%; n=39) over a twelve month span. Scores on the OCAN-Self demonstrated various unmet needs, most prevalently those related to unhappiness with social life (28.2%; n=24), psychological distress (27.4%; n=23), drug abuse (14.1%; n=12), self-harm (13.1%; n=11), issues with daytime activities (11.8%; n=10); and budgeting finances (11.8%; n=10). The transitions coordinator also completed the ANSA-T, a clinical report on the youth's most actionable needs. These were related to mood disturbances (61.1%; n=33), anxiety (55.6%; n=30), school attendance (42.6%; n=23), alcohol and drug use (40.7%; n=22), duration of substance abuse (38.9%; n=21), intimate relations (35.2%; n=19), adjustment to trauma (33.3%; n=18), peer/social (30.9%; n=17), impulse control (27.8%; n=15), and stage of substance abuse recovery (27.8%; n=15). These measures were completed at intake with the transitions coordinator and not following transition.

Cancelled Services

Differences between youth who cancelled services (those who declined further services, did not return phone calls, or moved away) and those who remained in the program were examined across all demographic and clinical variables. Chi-square tests revealed that cancelled youth scored significantly higher on the ANSA's measure of antisocial behavior, χ^2 (1, N=59) =3.84, p=.050. Also, a greater proportion of cancelled youth were diagnosed with Anxiety Disorder (Not Otherwise Specified), χ^2 (1, N=199) =4.05, p=.044.

Transitioned Youth vs. Youth on Waitlist

Differences between transitioned youth and those still waitlisted were examined across all demographic and clinical variables. Chi-square tests revealed that a significantly greater proportion of transitioned youth had a greater number of prior emergency department

visits, χ^2 (1, N=115) =4.76, *p*=.029, reported more unmet needs relating to psychological distress on the OCAN-Self, χ^2 (3, N=106) =10.98, *p*=.012, and scored more frequently in the moderate to high range for internalizing disorders on the GAIN-SS, χ^2 (5, N=167) =12.18, *p*=.032. A greater proportion of youth on the waitlist for AMHS had Oppositional Defiant Disorder, χ^2 (1, N=200) =7.64, *p*=.006, and Attention-Deficit Hyperactivity Disorder, χ^2 (1, N=200) =4.83, *p*=.028.

Transition Times across AMHS

A one-way ANOVA revealed that transition times for youth significantly differed across AMHS providers, *F* (6, 117) =5.00, *p*=.000. Tukey post-hoc comparisons revealed that transition times for the primarily French speaking general hospital provider (*M*=206.14, *SD*=132.18, n=10) were significantly longer than those for both the community youth services provider, *p*=.045 (*M*=58.14, *SD*=26.20, n=7) and for the non-project partner providers, *p*=.007 (*M*=72.04, *SD*=81.73, n=52). The psychiatric mental health provider (*M*=168.87, *SD*=115.09, n=23) also had significantly longer wait times than the non-project partner providers, *p*=.001.

Project Partner AMHS vs. Non-Project Partner AMHS

Transition wait times were significantly longer for youth referred to project partner AMHS (*M*=135.74, *SD*=103.25) than for youth referred to non-project partner AMHS (*M*=72.04, *SD*=81.73), *F* (1, 122) =13.62, *p*=.000. The distribution of youth seen by project partner providers was as follows: general hospitals (English: 15.0%; n=19; French: 4.7%; n=6); mental health centres (38.6%; n=49); community youth service agencies (6.3%; n=8), and substance abuse treatment centres (Dave Smith: 3.1%; n=4); and non-project partners (32.3%; n=41). Significant differences were also found between project partners and non-project partners for youth's reports on questionnaire measures. On the OCAN-Self, youth seen by project partners reported significantly more unmet needs than those seen by non-

project partners on items related to time spent on activities, χ^2 (2, N=88) =6.97, *p*=.031, physical health, χ^2(3, N=88) = 9.29, *p*=.026, psychological distress, χ^2 (3, N=87) =9.94, *p*=.019, and intimate relationships, χ^2 (3, N=88) =8.74, *p*=.033. On the GAIN-SS, youth seen by project partners scored significantly higher in the moderate to high range for substance disorders, χ^2 (6, N=125) =14.56, *p*=.024. On the ANSA, youth seen by non-project partners scored higher on individual and environmental strengths than those seen by project partners, specifically strengths related to optimism, χ^2 (1, N=46) =6.40, *p*=.011, leadership, χ^2 (1, N=46) =5.12, *p*=.024, and resourcefulness, χ^2 (1, N=47) =4.20, *p*=.041.

Discussion

The Youth Transition Project was implemented to assist youth with mental health and addiction issues as they transitioned from CAMHS to AMHS. Successfully transitioned youth were those who continued services and completed engagement to AMHS. Evaluation of the shared management model for youth transitions showed positive results in regards to transition times, with decreases seen over each subsequent program year. However, mixed results were seen in the distribution of youth who transitioned, with close to 60% of youth being seen by adult providers while the rest remained on waitlists or cancelled services.

Results demonstrate that the sample of youth enrolled in the program were in high need of services, fulfilling the objective of the Youth Transition Project in identifying an appropriate group of youth in need of transition. Youth enrolled in the program fit the transition age criteria for their respective child and adolescent mental health providers and exhibited a wide range of complex mental health and addictions problems. The majority of enrolled youth were comorbid for one or more disorders and many had substance abuse issues. Clinical and self-report measures also revealed that youth had various non-mental health related needs in social, behavioral, educational, housing, and financial areas. The

program also achieved other key objectives as youth were provided with counselling services and had their transition facilitated by the transitions coordinator.

Relationship between Youth Individual Differences and Transitional Success

Youth who transitioned to AMHS reported being more psychologically distressed and displayed more significant internalizing disorders. These youth may have shown a greater need for immediate treatment or were potentially given priority over those displaying a lesser degree of urgency. Similarly, these youth also appeared to actively pursue treatment for their problems, reporting more recurrent visits to hospital emergency departments. Thus, these findings demonstrate that youth's mental health was directly related to uptake of AMHS. Although the majority of youth were successfully transitioned to adult systems of care, nearly 1 in 5 (19%) were not yet seen by an adult provider and remained on waitlists for services. Youth that remained on the waitlist presented with more behavioral disorders, suggesting specific and systematic challenges may exist for these individuals. Youth who cancelled services displayed greater anti-social behaviors and had more anxiety disorders than youth who remained in the program. Youth who reported greater anti-social behavior may have exhibited higher drop-out rates because they were less inclined to comply with procedures of the program or found it less useful. In comparison, participating in the transitions program (meeting the coordinator, discussing changes in care) may have increased anxiety in youth already struggling with anxious feelings, which may have led to the cancellation of services.

Differences were also found between youth referred to project partner and non-project partner AMHS providers. Youth seen by project-partners displayed more psychological and social problems whereas those seen by non-project partners were more resilient and reported greater individual strengths. It may be that youth who felt they had progressed in their treatment preferred to be linked to services requiring less clinical intervention such as those offered by non-project partners. In other words, these youth required support in the spectrum of other developmental transitional needs (e.g. employment, housing, education) rather than

solely specialized mental health services. Services offered by project-partners, such as psychiatric services or complex treatment programs, may involve longer wait times or more multifaceted enrolment procedures than the private or local community-based services provided by non-partner agencies. Not surprisingly, youth referred to project-partner AMHS had longer transition times compared to non-project partners.

System Level Challenges

Yearly declines in the number of transitioned youth and prolonged wait times for access to AMHS highlight the challenges of the shared management model in providing consistent levels of service delivery. System level issues with maintaining steady engagement from partner provides raise questions regarding the long-term sustainability of the Youth Transition Project. The shared management model relies heavily on the good will of partner providers which can prove costly if providers struggle to offer consistent service delivery. Services from partners were offered "in kind" and had youth transitions implemented into existing services. When provider good will starts to decline and adult services are unable to respond, youth are waitlisted for services. The failure of the model in addressing extended waitlists highlights the need to have a clinical transition team to provide essential services that can bridge wait times in order for youth to continue their services without interruption. Existing CAMHS providers could also attempt to continue providing services as youth await placement with AMHS.

Interplay Between Youth and Organizational Factors

Aside from specific organizational (system level) challenges, issues stemming from the interplay between organizational and youth (individual level) factors may also affect youth's ability to make easier, seamless transitions. Provider agencies have specific mandates that outline how the organization functions in its delivery of services. These mandates define who the organization is willing to accept which could pose problems when linking youth to services within a shared management framework. However, this creates a model that is not

necessarily youth centered but allows agencies to deny youth services based on specific criteria, or creates delays in services, especially with such a diverse range of mental health issues (e.g. anxiety, behavioral, thought disturbances). Moreover, lower levels of investment, such as the "in kind" services provided by agencies for the Youth Transition Project, combined with changes in organizational representations in the advisory committee, make youth's access to services even more difficult. A reconfiguration of services involving stronger commitment at both the system and provider level may be necessary for the sustainability of the program. Relying only on in-kind services from existing AMHS providers may be ineffective but additional funding for transitional youth services could create a more sustainable long-term solution.

Limitations

The study would benefit from the inclusion of follow-up measures to better gage youth's experiences with the transitions program. Satisfaction questionnaires and qualitative interviews would provide data that could be used to improve facets of the program and inform service providers of the challenges youth face when undergoing transition from CAMHS to AMHS. Such data could also determine whether youth who engaged with AMHS considered their transition a success on a personal level as opposed to just an administrative event at the systems level. Follow-up measures with youth are planned to be completed in the future.

Implications for Behavioral Health

The research team has spearheaded the adaptation of the shared management model for use in mental health and addiction transitions and is the first to systematically evaluate its efficacy and impact on patient outcomes. The shared management model has been recognized as a best practice in mental health care and, with improvements to its sustainability, the team hopes that it can be formally identified as an evidence-based approach for transitioning youth

between child and adult based care that is inclusive of both hospital and community based services. While this initiative has implications for transitions specific to mental health, the evaluation platform could be adapted to inspire the study of the shared management model in other health sectors as well.

The evidence obtained from the evaluation of the Youth Transition Project indicates that the shared management model for youth mental health and addiction transitions has been successful in promoting continuity of care by transitioning youth from youth to adult services. The effectiveness of the linkages that have been facilitated between CAMHS and AMHS are demonstrated by results indicating that most youth enrolled in the program continued to be engaged in an appropriate level of mental health service.

Overall, findings suggest that the shared management model, through its explicit focus on continuity of care, collaboration, and coordination, has the potential to reduce health care costs and improve patient outcomes. Further model development aimed at addressing problems with inconsistencies in service delivery and strengthening the long-term commitment of providers is needed to enhance the long-term sustainability of transitional programs based on the shared management model.

Conflicts of interests: None declared.

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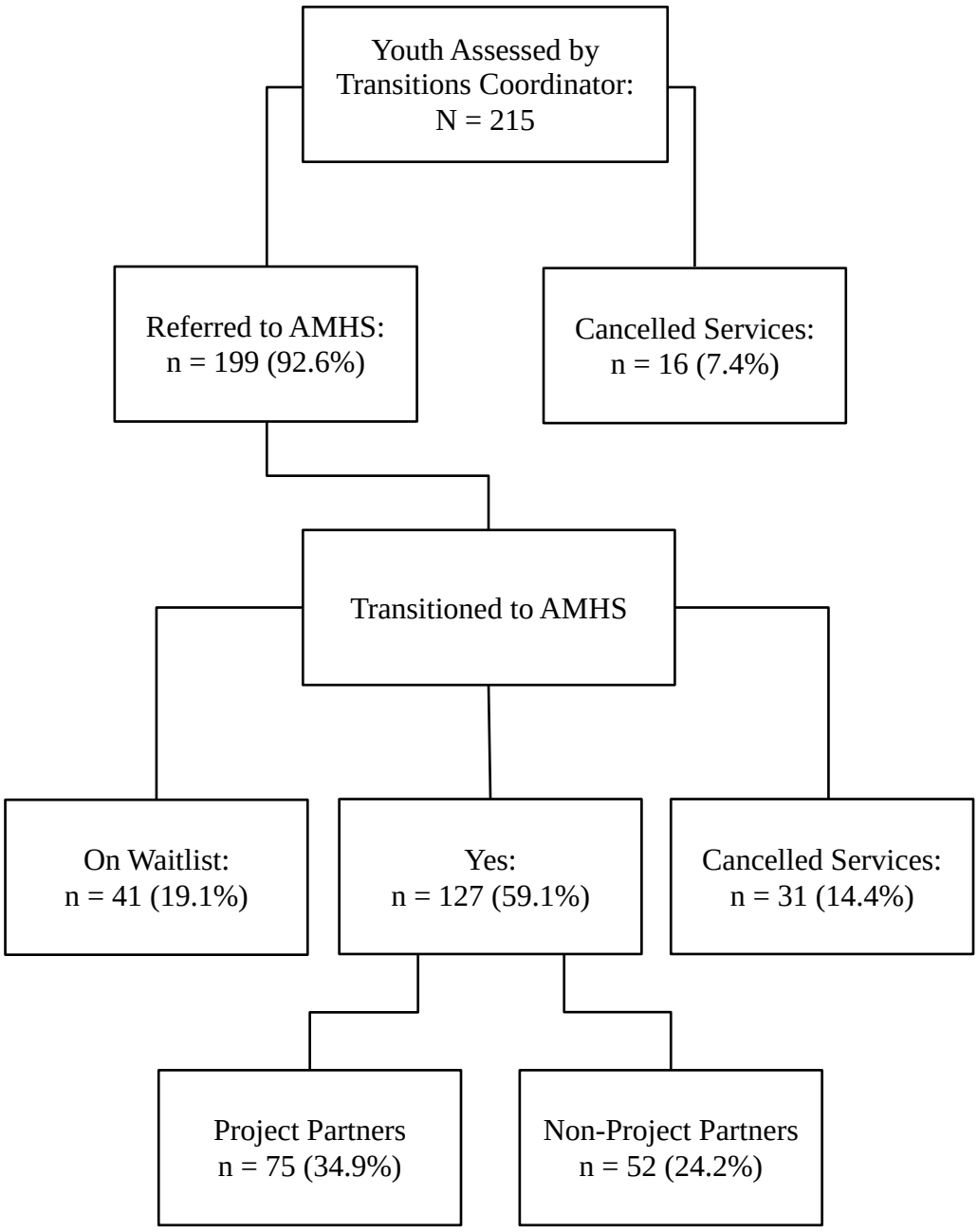
Table 1

Diagnoses and other presenting problems of youth

Diagnoses	**Number of Cases (%)**
Anxiety Disorders	71.1
Mood Disorders	62.0
Disorders usually first diagnosed in infancy, childhood, or adolescence	39.9
Substance-Related Disorders	21.7
Schizophrenia and other Psychotic Disorders	9.4
Personality Disorders	9.4
Eating Disorders	3.6
Somatoform Disorders	1.4
Additional Problems (Academic problems, relational problems)	21.0

Figure 1

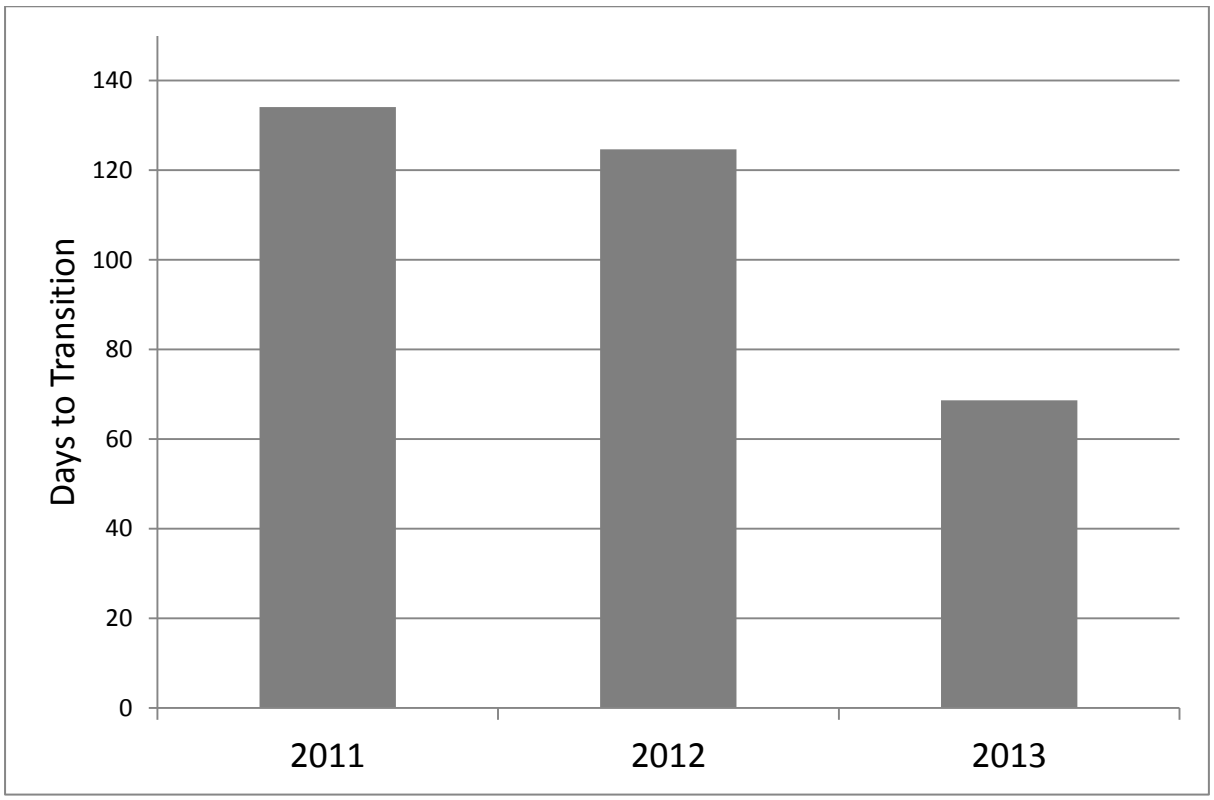
Distribution of Transitioned vs. Non-Transitioned Youth



Distribution of youth across stages of transitions program who successfully transitioned, remained on a wait list for services, or cancelled services.

Figure 2

Average Transition Time across Program Years



Mean number of days for youth to transition from CAMHS to AMHS displayed across each year of program.

Second Revisions for Transitioning Youth into Adult Mental Health and Addiction Services: An Outcomes Evaluation of the Youth Transition Project

Revisions/Comments from Reviewer #2	**Revisions Made**
Figure 1 The changes made to the figures and tables also enhanced the understanding of the population being served and the flow of transition. Nevertheless, I do believe that Figure 1 could be constructed so it looks a bit more professional as it should in a peer-reviewed scholarly journal.	Figure 1 has been revised to look more professional. The boxes and lines have been redesigned to look sharper and more journal appropriate.
Discussion The enhanced discussion on the possible "weaknesses" on the System Level which makes this model more challenging is much improved. I continue to suspect, however, that there is a strong interrelationship between the characteristics of the youth and the system's willingness to accept them (I.e. the institutions understanding of their specific mission as an agency). This agency self -identification which dictates culture and overall functioning, compounded by lower levels of investment ("in kind" services) and employee turnover, directly affects a youth's ability to make an easier, seamless transition. I do believe the authors are articulating these ideas. Sub-headings and a somewhat sharper development of these ideas would be very, very helpful. Most importantly, I think that the manuscript still could be even better with more direct and sharper language in the discussion section. This can be accomplished through a more clear understanding how the individual characteristics and the systems interface and a better description of the idiosyncratic attributes of system agencies and how it affects Shared Management Model.	New sections have been added to address the reviewer's suggestions. New sub-sections have been created with the following titles: "Relationship between Youth Individual Differences and Transitional Success", "System Level Challenges", and "Interplay Between Youth and Organizational Factors". The overall discussion section has been expanded and reorganized to present ideas more clearly and edits have been made to improve language and flow.