THE CHAOTIC COHORT: YOUNG ADULTS AND PSYCHIATRIC CARE CHALLENGES IN THE US

LA COHORTE CHAOTIQUE : JEUNES ADULTES ET LES DÉFIS DES SOINS PSYCHIATRIQUES AUX USA

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SUMMARY

Young adulthood, the period of time spanning ages 18 to 25 years, is gaining recognition as a distinct developmental period. Mental illness contributes significantly to young adult morbidity and mortality. Our current US mental health system is not equipped to adequately address the needs of this vulnerable cohort. In this article, we review the origins of young adulthood, examine the neurodevelopmental and sociocultural underpinnings of this distinct population, and provide an overview of the shortcomings of their psychiatric care within the extant US healthcare system.

KEYWORDS

Young adults, Psychiatric care, United States, Healthcare system.

RÉSUMÉ

Les jeunes adultes, c'est-à-dire entre l'âge de 18 et 25 ans, constituent une période distincte du développement qui commence à être reconnue. La maladie mentale contribue de façon significative à la morbidite et à la mortalité des jeunes adultes. Notre système actuel de santé mentale aux USA n'est pas équippé pour faire face de manière suffisante aux besoins de cette cohorte vulnérable. Dans cet article, nous examinons les origines de cette période, ainsi que les fondations neurodéveloppementales et socioculturelles de cette population distincte. Nous proposons aussi une vue d'ensemble des lacunes dans les soins psychiatriques qui leur sont proposés au sein du système de santé américain de nos jours.

MOTS-CLÉS

Jeunes adultes, Soins psychiatriques, Etats-Unis, Système de santé.

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INTRODUCTION

Adolescence, a rapidly evolving developmental stage marked by the start of puberty and culminating with sexual, physical, and psychological maturity, has traditionally separated childhood and adulthood. Prior to the 1960s, once adolescents reached the age of majority (18 years of age in the US), they were legally adults

and expected to be emotionally and financially independent. However, over the last half century, increasing educational demands, entry of more women into the workforce, delayed age of first marriage, and postponed parenthood have extended the entry into adulthood. [1,2] This prolonged period of transition and self-exploration has become so persistent in American culture that it is no longer an isolated phenomenon; rather, individuals aged 18 to 25 years now comprise a distinct developmental period that the Institute of Medicine coined young adulthood. [3]

Young adults (YA) are distinct from both adolescents and adults. Despite recognition of YA as a unique cohort, the psychiatric profession has been slow to accept the gradual evolution into adulthood, as evidenced by the separation of training into child and adult psychiatry and the artificial designation of 18 years old as the period of transition from pediatric to adult services. The following article will explore the history of young adulthood, delineate YA from adolescents and adults, and provide a framework for mental health clinicians by which to understand the unique challenges YA face.

THE EMERGENCE OF YOUNG ADULTS

In the 1960s, Erik Erikson described adolescence as the period between 13 and 18 years of age, during which adolescents seek to both distinguish themselves as individuals and fit into a broader social construct. Once adolescents resolved the internal conflict of identity versus unity, they would be able to move into adulthood, defined by Erikson as ages 19-40 years, and begin forming intimate relationships and stable family units. However, Erikson soon recognized adolescents, especially those in their late teens, did not follow this trajectory. Instead, they entered what he coined the "psychosocial moratorium," a period of time "during which the young adult through free role experimentation may find a niche in some section of his society." [4] These adolescents did not follow the traditional pathways to adulthood of graduation from secondary school, entrance into the workforce, and marriage. They appeared to be in limbo.

Over the next several decades, this undefined group began to expand. Jeffrey Arnett proposed four cultural shifts that likely contributed to the growth of this cohort: 1) the technological revolution, resulting in a shift from industrial work to jobs requiring specialized skills and advanced degrees; 2) the sexual revolution, bringing with it birth control and sexual intimacy without the commitment of marriage; 3) the women's movement, leading to women entering the workforce and choosing to delay childbirth; and 4) the youth movement, glamorizing youth and an extended period of self-exploration. [5] Arnett dubbed this period, ranging from ages 18 to 25 years, 'emerging adulthood,' and it is has since become evident that these individuals are not simply delayed adolescents, but biologically, psychologically, socially, and emotionally distinct from both adolescents and adults.

YA differ from adolescents and adults in important ways. First, they face significant variability when it comes to education, housing, and finances. "Emerging adulthood is the only period of life in which nothing is normative demographically," states Arnett, and further argues that predicting demographic status in 18-25 year olds is nearly impossible. For example, in 2012, there were 31.2 million EA in the United States; demographically, 41% (19.5 million) were enrolled in college (4-year, 2-year, or graduate), 19% (5.9 million) were unemployed at home, 2.4% (764K) were in the military (active duty or reserve); and 0.6% (180K) were in state correctional systems. [6,7] Second, YA are afforded more freedoms than adolescents (e.g., the legal right to vote [18] and drink [21]), and expected to assert their autonomy by making their own healthcare decisions.

Despite these added responsibilities, more than 60% of 18-25 year olds do not feel they have reached adulthood, defined as accepting responsibility for oneself, becoming financially independent, completing one's education, making independent decisions, and getting married. [5] While adolescence has traditionally been considered a time when the majority of identity exploration occurs, it is clear that these individual investigations extend beyond the high school years, and that investigations into love, work, and worldviews continue to well into the mid- to late-20's. [8] Thus, it is not until YA have fully explored themselves and their opportunities for growth that they begin to feel responsible and capable of navigating the world and embracing "adult" roles.

A NEUROBIOLOGICAL PERSPECTIVE ON YOUNG ADULTHOOD

Developmental neurobiology supports an extended adolescence and provides clues as to why 17 and 18 year olds may not have reached peak maturity. Adolescents are thought to be impulsive, emotional, and often engage in risk-taking behavior. Their "reckless" behavior results in a 200% increase in morbidity and

mortality from early childhood through early adulthood. [9] Galvan et al (2006) examined risk-taking behavior in 37 subjects, ages 7-29, and found that adolescents' nucleus accumbens (NAcc) activity was similar, or slightly more active, than that of adults, while their orbitofrontal cortex (OFC) activity more closely mirrored that of children. These findings suggest adolescents are primed to respond to rewards like adults, but lack the discerning capability of the OFC and often opt for instantaneous rather than long-term returns well into late adolescence and early adulthood. [10]

In fact, several primate and postmortem studies have shown that within the frontal lobe, the prefrontal cortex (PFC), responsible for complex, top-down cognitive control, inhibition, and executive function, is the last brain region to fully mature. Alternatively, the limbic system, which guides emotional decision making and impulsivity, develops several years earlier, creating a disconnect between awareness of dangerous behavior and the ability to abstain from it. [10,11]

Simultaneous with gray matter changes in the PFC and OFC, white matter also continues to mature through adolescence. Myelination occurs at similar rates across the brain but is most rapid in early adolescence and plateaus in young adulthood. [11,12] Myelination in the PFC extends into late adolescence and young adulthood to facilitate improved connectivity between the PFC and limbic systems. [11] Dopamine transmission, increased in these pathways during early adolescence, plays an important role in development by modulating striatal and prefrontal functions, impacting affective response and reward pathways. These pathways are critical in the emergence of several neuropsychiatric disorders in this age group, including psychotic illness. [13]

Changes in arousal and motivation, and the lack of ability to regulate impulsivity and affect are also thought to play a role in the development of substance use disorders in adolescents and YA.10,14 Most addictive disorders in adults have their onset in adolescence and early adulthood, and 80% of alcoholism cases develop before age 30. [14] Additionally, the prevalence of substance use disorders is elevated in adults with major mental illnesses such as schizophrenia, major depression, and personality disorders, [14,15] suggesting similar biological mechanisms predispose to both. Thus, the neurobiological changes occurring in young adulthood not only render YA cognitively and biologically immature compared to adults, but also place them at higher risk of developing psychiatric illness, adding to the vulnerability inherent in this transitional period.

CHALLENGES IN THE PSYCHIATRIC CARE OF THE YA

High Mental Illness Burden

Approximately 75% of mental illnesses have their onset between the ages of 17 and 24 years, [16] and as of 2003, approximately 1 million to 3.2 million YA had been diagnosed with a serious emotional disturbance. [17] Developmental disorders, including ADHD, disruptive behavior disorders, autism spectrum disorders, are more commonly diagnosed in childhood. [18] Others, including anxiety disorders, mood disorders, psychotic disorders, and substance use disorders, are more prevalent in adolescence and young adulthood. [19] More recently, at-risk categories for psychosis have emerged to describe the unclear constellation of symptoms postulated to precede schizophrenia or other psychotic illnesses. [20,21] All contribute significantly to long-term morbidity and mortality, with disability from mental illness (MI) accounting for 70% YA health burden worldwide. [22]

Delay in seeking treatment contributes to YA disability. Anxiety disorders are postulated to develop by age 11, but there can be up to a staggering 30-year delay in seeking treatment and mental health services. [23] Substance use disorders and mood disorders, both generally emerging before 30 years of age, can have equally long treatment delays, ranging from 0-18 years. [23] Czyz reported among college students with elevated suicide risk, the top barriers to seeking treatment were the perception that treatment was unnecessary (66%) and lack of time (26.8%), with 12% of students reporting stigma as a concern. [24] Of college students who meet criteria for an eating disorder, less than 28% receive treatment, with denial of illness, stigma, and lack of knowledge about college mental health resources often cited as the reason. [25]

Institutionalized, incarcerated, or homeless YA have higher rates of serious mental illness than their college-enrolled peers and have more difficulty graduating from secondary school, entering the workforce, and obtaining mental health services. [26] Studies indicate the proportion of mental illness in foster care youth is especially high, with post-traumatic stress disorder, depression, and anxiety among the most prevalent. [27,28] Of the approximately 20,000 YA aging out of the foster care system yearly, half are unable to obtain a high school diploma, and 25% to 50% are unemployed. [29] Young adults with MI are also prevalent in the juvenile justice system. Among these, 70% of girls and 60% of boys meet criteria for conduct disorder,

and the majority suffer from one or more mental illness. [30] Unsurprisingly, mental health outcomes for this population are poor. The significant illness burden of YA hinders normal development, and subsequently interferes with the transition to adulthood.

Poor Care Transitions

YA in transition from child to adult mental health services often find themselves without appropriate treatment providers or referred to adult mental health centers lacking the resources to meet their needs. [31,32] YA are notorious for treatment noncompliance, with mental health utilization of 18-19 year olds half that of 16-17 year olds. [33] The absence of cohesion in the transfer of YA between child and adult psychiatric services puts them at risk of psychiatric decompensation and renders them reluctant to seek help in the future. Underutilization of mental health services is especially problematic for adolescents because, in comparison to age-matched peers, they have more difficulty completing school and adopting the necessary roles of adulthood. [17]

Pediatric care transitions are also poor throughout the medical community. In 2002, the American Academy of Pediatrics (AAP), American Academy of Family Physicians, and American College of Physicians – American Society of Internal Medicine published consensus guidelines aimed at facilitating the transition of care to adult services for adolescents with special needs. [34] The recommendations called for improved handoff between pediatricians and adult providers, additional training about YA health needs, and a call for insurance and reimbursement reform. Despite this foundation, only limited progress has been made in assisting YA with the transition to adulthood. [35]

Care transitions are important for YA because psychiatric disorders beginning in childhood endure into adulthood. In their large longitudinal study of children and adolescents, Hofstra et. al. confirmed problematic mood and anxiety symptoms and deviant behaviors persisted into adulthood; importantly, those originating in adolescence tended to remit less than those beginning in childhood. [18] Achenbach et. al. specifically assessed adolescent syndromes and found substantial crossover into adulthood for a variety of symptoms, including aggressive behavior, withdrawn behavior, and attentional difficulties, among others. [36]

YA drop out of mental health services for unclear reasons; stigma, poorly applied expectations of autonomy, and an adult psychiatric care system not designed to meet their needs are among the hypotheses. Several communities have attempted to engage YAs in psychiatric treatment. Embrett et. al. reviewed international approaches to psychiatric care for YA in the US and UK. He examined six programs, four housed within an adult care model and two specific to YA. The two programs developed for YA aimed to improve independence and overall quality of life, and emphasized a comprehensive model of service delivery; they were successful because they provided wraparound services and focused on building close relationships with YA. All four programs cached within adult services were insufficient to adequately meet the needs of YA. [37] The author-developed program faced similar obstacles in delivering effective care within an archaic system. [7] Newer models of care are implementing preventative services earlier in childhood and shifting the pediatric boundary to 25 years of age in order to ease transition to adult services.

Gaps in Physician Knowledge and Training

In the US, adult and child psychiatric training are not integrated; rather, physicians must first complete a three-to-four year adult psychiatry residency before they can commence child and adolescent psychiatry training. Disjointed psychiatric education creates a workforce of adult psychiatrists with inadequate training in childhood development, unprepared to meet the delicate needs of young adults. According to the Accreditation Council of Graduate Medical Education, adult psychiatry residents are only required to complete two months of child and adolescent psychiatry; there are no guidelines provided as to how the experience should be structured. [38] Alternatively, child psychiatrists, although armed with expertise in milestones and maturation, are bound by the arbitrary legal distinction of the age of majority, and are faced with a paucity of services available to young adults with mental illness in transition from child services. The uncertainty in child and adult psychiatry about who "owns" the care of YA's creates a gap in faculty expertise, educational curricula, and training opportunities for psychiatrists working with this population.

Deficient Evidence Base

Outcomes research focused on the 18-25 year old cohort is limited. Longitudinal studies suggest psychopathology emerging in childhood persists into adulthood and is often associated with a severe illness course, albeit good treatment response. [18,20,21,39] However, few longitudinal studies have systematically assessed the progression of psychiatric symptoms emerging in YA, with most existing research focused

on schizophrenia and bipolar disorder, both traditionally manifesting in adolescence. [18,20,21]

YA fare even worse in clinical treatment trials, broadly separated into eligibility criteria of 13-18 years of age for entry into adolescent trials, and 18-65 years of age for enrollment in adult trials. This archaic research model places YA at a treatment disadvantage, as their psychological and developmental needs cannot be compared to those of adults in mid-to-late life. Oncologists have pointed to the paucity of YA enrolled in clinical trials, citing lack of awareness about the YA cancer problem, resistances among the medical community to generalize adolescent treatment to adults, and vice-versa, as well as the "invincibility ideas" prevalent in YA as barriers for change. Current researchers are exploring ways to improve recruitment and informed consent procedures for YA, and have already begun to extend enrollment of adolescent trials to include YA up to 30, 40, or even 50 years of age. [40] Future clinical trials need to acknowledge YA as a distinct cohort that may respond uniquely to pharmacologic and psychotherapeutic interventions, as there is no data currently to support or reject this hypothesis.

LOOKING BEYOND THE LIMITATIONS

The developmental period bridging adolescence and adulthood is fraught with ambiguity and instability, and our current healthcare system is poorly equipped to aid YA in the transition. But the health disparities may be temporary. Today's YA are more educated than their parents, and have proven resilient against a tumultuous healthcare environment. They have access to limitless amounts of knowledge and are more informed than their predecessors. Although they may lack discrete support services, they are more socially connected than ever before.

YA are also exceptionally technologically savvy. As psychiatric care extends beyond the office and into the interweb via computer-assisted therapy and mobile mental health delivery, YA will be able to apply their expertise to overcoming barriers associated with workforce shortages. YA's ability to tolerate uncertainty will likely make them more resilient to these systemic changes, and has potential to positively impact their health outcomes. The burden now rests with mental health professionals to recognize YA as a discrete cohort, acknowledge the shortcomings of our current mental healthcare system, and harness the YA's inertia and energy to fuel their successful transition into adulthood.

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