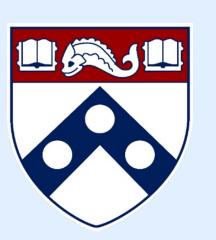


Socioeconomic Status and Transition Readiness in Adolescent and Young Adult (AYA) Survivors of Cancer

Rachel E. Yocom, Nu'25



Introduction

- AYA survivors of childhood cancer require life-long annual follow up care due to their high risk of late effects from their cancer treatment, thus necessitating transition to adult-oriented health care.
- Fewer than one-third of childhood cancer survivors receive follow-up care from an adult provider (Nathan et al. 2008).
- The Social-ecological Model of AYA Readiness to Transition (SMART) is a framework that emphasizes the importance of multilevel variables, including socioeconomic status, in transition readiness (Schwartz et al. 2011).
- AYAs from structurally minoritized sociodemographic groups often face health disparities that can impact successful transition to adult-oriented care (Prussien et al. 2022).
- Due to the importance of continued attendance in survivorship follow-up care, we aimed to investigate the relationship between neighborhood income and transition readiness, particularly appointment keeping skills, among AYA survivors of cancer.
- We hypothesized that there would be a positive relationship between median neighborhood income and self-reported transition readiness skills.

Methods

- AYA survivors of childhood cancer (n = 593, ages 15 to 29) that were at least 2 years from end of treatment and at least 5 years from their cancer diagnosis were enrolled as part of a longitudinal study on self-management of AYA survivors (see Table 1).
- At baseline AYA completed the Transition Readiness Assessment Questionnaire (TRAQ) assessing transition readiness skills. We examined total TRAQ score (20 items), as well as the the score of the Appointment Keeping subscale (7 items, Table 2).
 - Response options ranged from 1 (No, I do not know how) to 5 (Yes, I always do this when I need to).
- Using participant addresses, neighborhood median income was extracted from the U.S. Bureau of the Census- 2020 Census Summary at the census tract level.
- The federal definition for low-income area (i.e., </= 80% statewide median income) was used to dichotomize neighborhood median income (Bona et al. 2016).
- Correlations at t-tests were used to analyze the relationship of neighborhood income and transition readiness skills.

Methods (cont.)

Table 1: Participant Characteristics (n = 593)				
Age M (SD)	19.73 (2.46)			
Age at Diagnosis M (SD)	7.36 (4.90)			
Years Off-Treatment M (SD)	10.47 (4.60)			
Race n (%)				
Non-Hispanic White	430 (72.5)			
BIPOC*	187 (31.6)			
Sex n (%)				
Male	308 (51.9)			
Female	278 (46.9)			

Table 2: TRAQ Appointment Keeping Section
Do you call the doctor's office to make an appointment?
Do you follow-up on any referral for tests or check-ups or labs?
Do you arrange for your ride to medical appointments?
Do you call the doctor about any unusual changes in your health?
Do you apply for health insurance if you lose your current coverage?
Do you know what your health insurance covers?
Do you manage your money and budget household expenses?

^{*}BIPOC=Black, Indigenous, and People of Color

Results

Figure 1: Census Tract Median Income vs. TRAQ Score

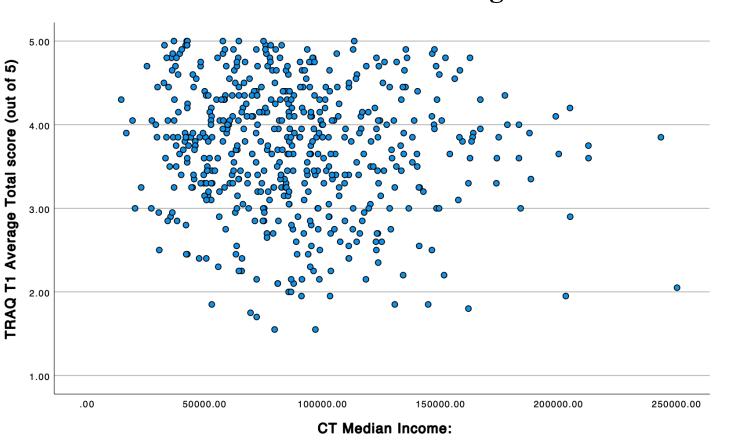


Table 3: Pearson's Correlations Between Median Income and TRAQ Scores (n=532)				
	1	2		
1. Median Income	-	-		
2. TRAQ Total Score	102*	-		
3. Appointment Keeping	117**	.931**		

*p<.05 **p<.01

Table 4: TRAQ Scores Between Low and Average/High Income Participants						
	Low Income: n=110	Avg/High Income n=422	t	p		
TRAQ Total score M(SD)	3.81 (0.68)	3.68(0.78)	1.78	.076		
TRAQ Appointment keeping M(SD)	3.43 (0.97)	3.22 (1.09)	1.92	.056		

- Results show that as median neighborhood income increased, self-reported overall transition readiness and appointment keeping skills decreased (see Fig. 1 and Table 3)
- When comparing TRAQ total scores from AYA from low median income areas versus AYA from average or high-income areas, there was a trend for those from low-income areas to have higher TRAQ total and appointment keeping scores, however this difference is small and non-significant.

Discussion

- The results did not support the hypothesis of a positive relationship between median neighborhood income and transition readiness.
- Analyses indicate that those from lower income neighborhoods may have greater transition readiness skills, including appointment keeping, yet more research is needed. Prior research in this area has been variable, including results that show no relationship between socioeconomic status and TRAQ scores (Jensen et al. 2017).
- It is possible that parental involvement in lower income neighborhoods may be more variable given financial strains and responsibilities (e.g., work, caring for multiple family members) and, as such, AYA may assume more responsibility for their care, including appointment keeping.
- Transition readiness is multifactorial. The results show that the role of income in transition readiness may be one important variable to consider among many, consistent with the SMART model.
- Future research should investigate how socioeconomic status, including neighborhood income levels, interacts with other variables to influence transition readiness.

References

- Bona et al. (2016). Impact of Socioeconomic Status on Timing of Relapse and Overall Survival for Children Treated on Dana-Farber Cancer Institute ALL Consortium Protocols (2000-2010). Pediatric blood & cancer, 63(6), 1012–1018. https://doi.org/10.1002/pbc.25928
- Jensen et al. (2017). Assessment of transition readiness in adolescents and young adults with chronic health conditions. *Pediatric rheumatology online journal*, *15*(1), 70. https://doi.org/10.1186/s12969-017-0197-6
- Nathan et al. (2008). Medical care in long-term survivors of childhood cancer: a report from the childhood cancer survivor study. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*, *26*(27), 4401–4409. https://doi.org/10.1200/JCO.2008.16.9607
- Prussien et al. (2022). Sociodemographics, Health Competence, and Transition Readiness Among Adolescent/Young Adult Cancer Survivors. *Journal of pediatric psychology*, jsac039. Advance online publication. https://doi.org/10.1093/jpepsy/jsac039
- Schwartz et al. (2011). A social-ecological model of readiness for transition to adult-oriented care for adolescents and young adults with chronic health conditions. *Child: care, health and development*, 37(6), 883–895. https://doi.org/10.1111/j.1365-2214.2011.01282.x
- Wood et al. (2014). The Transition Readiness Assessment Questionnaire (TRAQ): its factor structure, reliability, and validity. Academic Pediatrics, 14(4), 415-422.

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