

Literature Reviews

Collected, relevant, and summarized information on topics related to best practice for transition aged youth.

Peer to Peer Support

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Utilization of various peer-to-peer models in mental health and substance misuse prevention has gained attention as an effective approach to providing meaningful support, necessary encouragement, and vital education to individuals facing these challenges. Peer-to-peer models involve individuals with lived experience of mental health issues or substance misuse who offer support and guidance to others going through similar struggles. This approach has been shown to be particularly effective due to the sense of empathy, understanding, and shared experiences between peers (Guida, et.al., 2002).

Here are some key aspects, and description of various peer-to-peer models in mental health and substance misuse prevention:

1. **Peer-Led Interventions:** Peer-led interventions involve peers delivering evidence-based interventions or treatments under the guidance of mental health professionals. This approach helps reduce stigma and encourages engagement in treatment.

2. **Peer Support Groups (Mutual Support Groups):** Peer support groups bring together individuals facing mental health or substance misuse challenges to share experiences, coping strategies, and emotional support. These groups are usually facilitated by trained peer supporters who have successfully navigated their own recovery journey.
3. **Online Peer Support:** Online platforms and forums allow individuals to connect with peers virtually, providing a sense of community and understanding. Online peer support can be particularly valuable for individuals who may not have access to in-person support groups.
4. **Recovery Coaching:** Recovery coaches or peer mentors work individually with people in recovery to help them set goals, create action plans, and maintain their recovery progress. These coaches serve as role models and advocates for those seeking help.
5. **Hotlines and Helplines:** Peer-operated hotlines and helplines provide 24/7 support and crisis intervention. These services are often manned by individuals with lived experiences who can relate to callers' struggles.
6. **Peer Navigators:** Peer navigators assist individuals in accessing mental health or substance misuse services, providing guidance through the complex healthcare system and connecting them with appropriate resources.
7. **Training and Certification:** Many peer support programs offer training and certification to ensure that peer supporters are adequately prepared to provide assistance and support while maintaining boundaries and ethical standards.

8. **Reducing Stigma:** Peer-to-peer models have the potential to reduce the stigma associated with mental health and substance misuse, as individuals with lived experiences challenge stereotypes and misconceptions.

Research on the effectiveness of peer-to-peer models in mental health and substance misuse prevention has shown promising results. Peers often have unique insights into the challenges faced by individuals in recovery, fostering a sense of trust and camaraderie, influencing individual characteristics such as self-efficacy (Tacy Wallace, 2016).

Peer-Led Interventions

Peer-led interventions offer a unique method of providing prevention, treatment, or recovery programming to adolescents, and adults alike and this modality is hallmarked by a peer, rather than a professional, implementing the identified treatment (Rivera, et.al., 2018). This approach helps reduce stigma and encourages engagement in treatment (Boehm, et.al., 2009). Peer-to-peer substance misuse prevention support groups can be tailored to different age groups to address the specific needs and challenges faced by individuals at different life stages.

When specifically designed for teenagers and young adolescents facing substance misuse, or mental health challenges, often the focus is on peer influence, coping strategies, and building resilience (Boehm, 2009). Additional factors that can be supported in this modality such as coping skills, developmental and neurocognitive considerations, and psychosocial factors, are supported by evidence (Brown, 2001). Youth 12-Step Groups: Groups like "Young People in Recovery" (YPR) provide

a 12-step program tailored to young individuals seeking substance misuse prevention and recovery support (Latimer, et.al., 2000).

Interventions targeting adults, whether emerging, young, or older adults offer similar structure while incorporating additional guidance on life events such as childcare, parental care, and workplace needs (Arky, 2023). Additionally, specific groups/interventions for gender, cultural, or sexual identity could also help fill gaps. Designed for specific genders, recognizing the unique experiences and needs of individuals in substance misuse prevention and recovery, these groups offer a safe and understanding space for LGBTQ+ individuals facing substance misuse issues.

Virtual peer -led interventions are available across age groups and are associated with varying levels of engagement and success dependent on characteristics such as age and gender (Georgie, et.al., 2016). Online peer groups that can be accessible to individuals of all age groups, regardless of geographic location.

It's important to note that the effectiveness of peer support groups may vary depending on the facilitation, group dynamics, and the needs of participants. Tailoring the content and format of these groups to different age groups ensures that individuals receive support that resonates with their stage of life and helps address the specific challenges they may be facing. Additionally, peer support groups should always be part of a comprehensive approach to substance misuse prevention, including access to professional services and evidence-based interventions.

Peer Support Groups (Mutual Support Groups)

Peer support groups, also called mutual support groups, are peer-led and structured to develop reciprocity (Steinberg 2014). Participation in mutual-help organizations (MHOs), such as Alcoholics Anonymous (AA) and SMART Recovery, is the most common form of SUD help-seeking in the US (Grant et al., 2015, Grant et al., 2016, Kelly et al., 2017). Peer support groups bring together individuals facing mental health or substance misuse challenges to share experiences, coping strategies, and emotional support. These groups are usually facilitated by trained peer supporters who have successfully navigated their own recovery journey. Mutual support groups are small, voluntary, groups formed by people who share the experience of a life's difficulty, and the goal is to help each other improve their overall well-being.

Founded in 1935, Alcoholics Anonymous (AA) is cited by numerous authors as one of the oldest examples of a peer-to-peer support program (Van Tosch & del Vecchio, 2000; Salzer, 2002).

Mental Health was also a turning point for the peer support movement. This report validated the effectiveness of peer support, stating "Consumer organizations have had a measurable impact on mental health services, legislation, and research. One of their greatest contributions has been the organization and proliferation of self-help groups and their impact on the lives of thousands of consumers of mental health services" (U.S. Department of Health and Human Services, 1999, p. 95).

SAMHSA defines peer support as "mutual support— including the sharing of experiential knowledge, and skills, and social learning," which "plays an important and invaluable role in recovery. Residents encourage and engage each other in recovery

and provide each other with a sense of belonging, supportive relationships, valued roles, and community” (SAMHSA, 2006,

The International Association of Peer Supporters (iNAPS), formerly known as the National Association of Peer Specialists, specifically includes youth in their definition of peer support. iNAPS states that peer support is “casual, intermittent, volunteer and informal support from one who has had the same or similar experiences in a broad range of settings including but not limited to psychiatric and general hospitals, correctional institutions, juvenile and geriatric residential facilities, substance use disorder treatment facilities, educational institutions and community and private mental health provider agencies.” iNAPS defines a peer specialist as “one with a mental health recovery experience who helps others with a psychiatric condition on their recovery journeys in a formal manner and is paid for his/her services” (Harrington, 2011).

Online peer support refers to the provision of support, encouragement, and guidance to individuals facing similar challenges or experiences through internet-based platforms. This approach harnesses the power of technology to connect people from different locations who share common issues, such as mental health concerns, chronic illnesses, or life transitions. Online peer support communities offer a sense of belonging and understanding, allowing individuals to share their stories, seek advice, and provide mutual support in a safe and anonymous environment (Stand, et.al., 2020). Both virtual and in person support groups often request privacy and anonymity as a part of group involvement but online support platforms may provide additional layers of protection in this area. Many online peer support platforms allow users to participate anonymously or

use pseudonyms. This anonymity can encourage individuals to open up and share their experiences without fear of judgment or stigma.

Of note, is current ongoing research in a hybrid approach to support groups. Findings suggest these two modalities can complement one another, allowing participants access in a meaningful way that meets their current needs, and increases connectedness (Leamy, 2011). . Combining online and offline peer support groups is a promising concept for facilitating recovery-oriented care and warrants continued research (Strand, et.al., 2020).

Limitations

In the absence of rigorous studies that can directly inform clinical and public health recommendations, the majority of studies focus on alcohol and adults and little research is available on Appalachian values. While findings support and identify variations in service delivery structures, program goals, host service systems, peer roles, core competencies, training and supervision needs, outcomes for youth and young adult consumers. The findings have implications for policymakers, clinicians, and advocates in the field of substance misuse prevention and treatment. It suggests that using language that accurately reflects the seriousness of the issue, such as "substance use disorder," may help promote a greater recognition of treatment needs and encourage appropriate interventions for individuals struggling with substance-related challenges.

References:

Best, D., Gow, J., Knox, T., & Taylor, A. (2012). From the therapeutic community to the abstinent community: Enabling service users to become peer support workers and peer

recovery mentors. *Journal of Groups in Addiction & Recovery*, 7(2-4), 176-190. This article discusses the transition of service users in therapeutic communities to become peer support workers and peer recovery mentors.

Boehm, K. E., Schondel, C. K., Marlowe, A. L., & Manke-Mitchell, L. (1999). TEENS CONCERNS: A NATIONAL EVALUATION. *Adolescence*, 34(135), 523-523.

Brown SA, D'Amico EJ, McCarthy DM, et al. Four-year outcomes from adolescent alcohol and drug treatment. *J Stud Alcohol*. 2001;62(3):381–388.

Campbell, B. K., Fuller, B. E., Lee, E. S., Tillotson, C. J., Woelfel, T. L., Jenkins, L. M., & Robinson, J. (2009). Facilitating outpatient treatment entry following detoxification for injection drug use: A multisite test of three interventions. *Journal of Substance Abuse Treatment*, 37(3), 287-300. This research examines the impact of different peer-led interventions in facilitating treatment entry for individuals with injection drug use after detoxification.

Cislo, A. M., & Holden, D. J. (2017). Peer recovery support services: Early implementation of the Connecticut Community for Addiction Recovery model. *Substance Use & Misuse*, 52(2), 190-197. This research examines the implementation of a peer recovery support model in Connecticut to aid individuals in addiction recovery.

Dennis, M., Scott, C. K., & Funk, R. (2003). An experimental evaluation of recovery management checkups (RMC) for people with chronic substance use disorders. *Evaluation and Program Planning*, 26(3), 339-352. This study evaluates the effectiveness of a peer-led intervention called Recovery Management Checkups (RMC) in supporting individuals with chronic substance use disorders.

Finch, A. J., Jurinsky, J., & Anderson, B. M. (2020). Recovery and Youth: An Integrative Review. *Alcohol research : current reviews*, 40(3), 06.

Galanter, M., Dermatis, H., & Talbot, N. (2012). Double trouble in recovery: Self-help for people with dual diagnoses. Hazelden Publishing. This book explores the challenges faced by individuals with co-occurring substance misuse and mental health disorders and highlights the effectiveness of peer-led self-help groups in addressing these issues.

Georgie J, M., Sean, H., Deborah M, C., Matthew, H., & Rona, C. (2016). Peer-led interventions to prevent tobacco, alcohol and/or drug use among young people aged 11-21 years: a systematic review and meta-analysis. *Addiction (Abingdon, England)*, 111(3), 391–407.

Guida, F., De Leon, G., & Monahan, K. (2002). Measuring peer interaction in the Therapeutic Community. In *American Psychological Association Convention* (pp. 22-25).

Laudet, A. B., Magura, S., Vogel, H. S., & Knight, E. L. (2000). Support, mutual aid and recovery from dual diagnosis. *Community Mental Health Journal*, 36(5), 457-476. This study investigates the role of mutual aid and peer support in the recovery of individuals with co-occurring substance use and mental health disorders.

Leamy M, Bird V, Le Boutillier C, Williams J, Slade M. Conceptual framework for personal recovery in mental health: systematic review and narrative synthesis. *Br J Psychiatry*. 2011;199(6):

Latimer WW, Newcomb M, Winters KC, et al. Adolescent substance abuse treatment outcome: The role of substance abuse problem severity, psychosocial, and treatment factors. *J Consult Clin Psychol*. 2000;68(4):684–696.

Rivera, M.S., Nangle, D.W., Rothstein, E. (2018). Peer Interventions. In: Levesque, R.J.R. (eds) *Encyclopedia of Adolescence*. Springer, Cham.

Strand, M., Eng, L.S. & Gammon, D. Combining online and offline peer support groups in community mental health care settings: a qualitative study of service users' experiences. *Int J Ment Health Syst* 14, 39 (2020)

Tracy, K., Burton, M., Nich, C., & Rounsaville, B. (2011). Utilizing peer mentorship to engage high recidivism substance-abusing patients in treatment. *The American Journal on Addictions*, 20(6), 543-546. This study explores the use of peer mentorship in engaging and retaining high recidivism substance-abusing patients in treatment.

Tracy, K., & Wallace, S. P. (2016). Benefits of peer support groups in the treatment of addiction. *Substance abuse and rehabilitation*, 7, 143–154.

Xuan, Z., Choi, J., Lobrutto, L., Cunningham, T., Castedo de Martell, S., Cance, J., Silverstein, M., Yule, A. M., Botticelli, M., & Holleran Steiker, L. (2021). Support Services for Young Adults With Substance Use Disorders. *Pediatrics*, 147(Suppl 2), S220–S228.

Zemore, S. E., Kaskutas, L. A., Mericle, A., & Hemberg, J. (2017). Comparison of 12-step groups to mutual help alternatives for AUD in a large, national study: Differences in membership characteristics and group participation, cohesion, and satisfaction. *Journal of substance abuse treatment*, 73, 16–26.

Sexual Violence Prevention in Youth and Young Adults

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Scope of the Issue: National Data

The term sexual violence acts to inclusively describe a category of sexual acts that are non-consensual and that are forced or coerced onto a person regardless of their gender identify and includes terms such as rape, attempted rape, sexual assault, sexual abuse, and sexual violence (Gavey, 2014) . As highlighted by the Centers for Disease Control and Prevention’s STOP SV Technical Package, sexual violence continues to impact our nation. Across the United States almost 20% of women report an experience of either attempted or completed rape within their lifetime while over 40% have experienced other forms of sexual violence (Basile et al., 2016). In addition to rape, it is estimated that almost 13% of women have experienced sexual coercion, 27.3% have experienced unwanted sexual contact, and almost one third report non-consensual sexual experiences at some point during their life (Breidig, et.al., 2014).

It is estimated that out of every nine girls under the age of 18, one will experience sexual abuse or sexual assault (Finklehor, et.al., 2014). While the majority of survivors under the age of 18 identify as female, almost 20% identify as male (Breidig, et.al., 2014). Age based concerns continue to be presented, as those who identify as female between the ages of 16-19 are four times as likely to experience sexual violence when compared with the general public, indicating a need for early prevention strategies targeting teens and youth (Department of Justice, 2017). College age independent living represents a unique set of risk factors for a host of concerns,

including sexual violence. Estimates suggest that between 10% - 25% of adolescents have experienced some form of physical violence within a dating relationship, and one in four college-age women experiences attempted or completed sexual violence on campus (Storer, et.al., 2016). These estimates exclude individuals in trade school, or those of the same age group who have entered the workforce, indicating a larger issue with identifying and supporting individuals apart from a school-based system. In addition to age, sexual identity is correlated with experience of risk of sexual violence. Up to half of individuals identifying as transgender and bisexual identifying women will experience sexual violence during their lifetime (Truman, et.al., 2022). Gender identity within sexual identity also represents difference experience of risk of sexual violence. Individuals who are female identifying experience sexual violence at a higher rate than their male identifying counter parts as almost half (46.4%) of lesbians, and almost two thirds (74.9%) bisexual women while 43.3% heterosexual women reported sexual violence other than rape during their lifetimes, while 40.2% of gay men, almost half (47.4%) bisexual men and 20.8% heterosexual men reported sexual violence other than rape during their lifetimes(Truman, et.al., 2022). Additionally, women identifying as trans women comprise roughly 0.5% of the US population, and experience higher risk of experiencing sexual violence when compared with other adult populations (Testa, et.al., 2012).

The root cause and risk factors associated with sexual violence are also linked to other forms of violence such as inter-partner violence, and according to the National Coalition of Anti-Violence, 10% of LGBTQIA survivors of IPV have also experienced some form of sexual violence, perpetrated by the same partner (Testa, et.al, 2012). Additionally, data continue to emerge for individuals who identify as gender non-conforming, trans, and genderfluid. Due to limited inclusion in data collection, estimates of occurrence within these populations are largely speculative. Overall, rates of survivors identifying as LGBTQIA may be underreported as discrimination in care settings may limit reporting behavior.

While perpetrators are more likely to be strangers to the survivor on non-sexual assault (Morgan and Truman, 2019), most commonly sexual violence is perpetrated by an acquaintance of a sexual violence survivor (Planty, et.al., 2013). Additionally, when compared with non-sexual assault, sexual violence is associated with greater impact on self-esteem, self-criticism, and attachment style (Schnittker, 2022).

Primary prevention strategies, as defined in this paper include universal interventions targeted to general and selected populations and those who may experience increased risk for sexual violence perpetration (Centers for Disease Control & Prevention, 2004). Effective primary prevention strategies include policies and programs, similar to those presented by the federal government such as the Clery Act, Title IX, and its expansion into the Campus SaVe Act, are geared toward increasing transparency in reporting, increase awareness, and offer rights to victims (Brooke, et.al., 2017). Additionally, novel research suggesting opportunities to prevent sexual violence perpetration at the community level through alcohol policy including limiting objectification in advertising, outlet density and excessive alcohol consumption is emerging (Lippy & DeGue, 2014).

While many risk reduction approaches target potential victims, decreases in number of offenders are a key component of the prevention puzzle and offer the opportunity to reduce sexual violence (Degue, et.al., 2014) . The influence of social norms which condone, support, or excuse sexual and dating violence has received significant attention recently in social, political, and criminal justice settings. (DeGue et al. 2014). The influence of these indicators has led to the development of programs to tackle these issues in American culture such as bystander interventions and educational curriculum.

Emerging and Promising Practices

Defined as a universal dating violence prevention program targeting middle and high school students, *Safe Dates*, utilizes a 10-session curriculum designed to address attitudes, social norms, and healthy relationship skills (Foshee et al., 2004). Evaluation at 4 years following program implementation students were significantly less likely to self-report either perpetration or victimization by sexual violence (Foshee et.al., 2004).

Another school-based dating violence program, *Shifting Boundaries*, is also a universal prevention program comprised of two components: a six-session classroom-based curriculum is supported with a building level intervention which addresses policy and safety concerns within the school. Implementation of both curriculum and policy resulted in self-reported perpetration and victimization of sexual harassment, sexual violence victimization by a dating partner(Taylor, et.al, 2011, 2013).

Bystander-based prevention interventions are effective in reducing dating and sexual violence tolerance at the individual level. Two such programs are *Coaching Boys into Men* and *Bringing in the Bystander*. *Coaching Boys into Men*, a violence prevention program designed to be delivered by athletic coaches, and is geared to teaching about healthy relationship behaviors, promotes gender-equitable beliefs, and increases appropriate bystander intervention. Participating athletes were found to be significantly more likely to intervene against abusive or disrespectful behaviors when compared with their peers (Miller, et.al., 2020)

Bringing in the Bystander was developed as workshop style program that can be implemented in two sessions for a total of 4.5 hours or condensed in one session for 90 minutes. Regardless of length, definitions, incidence, and impact of sexual violence are

presented as well as intervention strategies for bystanders. Bringing in the Bystander was developed with the intention of shifting the narrative around sexual violence on university campuses by impacting community values from individual responsibility to community responsibility (Zoran, et.al.,2021).

Limitations

Limitations to ongoing research are presented by fiscal limitations, and rigor of ongoing research designs. The majority of evaluation studies of sexual violence prevention interventions included one-session interventions within college populations, which while inexpensive to implement and evaluate present significant barriers in evaluation (DeGue, et.al., 2014). While these emerging practices are promising, a theoretical focus is needed to establish violence prevention best practices (Tharp, et.al., 2013).

Additionally establishing best practices in diverse settings including with rural and Appalachian participants are key to ensuring prevention is accessible to all.

References:

Basile, K.C., DeGue, S., Jones, K., Freire, K., Dills, J., Smith, S.G., & Raiford, J.L. (2016). STOP SV: A Technical Package to Prevent Sexual Violence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Breiding, M. J., Smith, S. G., Basile, K. C., Walters, M. L., Chen, J., & Merrick, M. T. (2014). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization--national intimate partner and sexual

violence survey, United States, 2011. *Morbidity and mortality weekly report. Surveillance summaries (Washington, D.C. : 2002)*, 63(8), 1–18.

Brooke Miller Gialopsos. (2017). Sexual Violence in Academia: Policy, Theory, and Prevention Considerations, *Journal of School Violence*, 16:2, 141-147.

Centers for Disease Control and Prevention. (2004). Sexual violence prevention: beginning the dialogue. Atlanta, GA: Centers for Disease Control and Prevention; 2004.

Coker, A. L., Bush, H. M., Brancato, C. J., Clear, E. R., & Recktenwald, E. A. (2019). Bystander Program Effectiveness to Reduce Violence Acceptance: RCT in High Schools. *Journal of family violence*, 34(3), 153–164.

DeGue, S., Valle, L. A., Holt, M. K., Massetti, G. M., Matjasko, J. L., & Tharp, A. T. (2014). A systematic review of primary prevention strategies for sexual violence perpetration. *Aggression and violent behavior*, 19(4), 346–362

DeGue S, Valle LA, Holt MK, Massetti GM, Matjasko J, Tharp A. A systematic review of primary prevention programs for sexual violence perpetration. *Aggression and Violent Behavior*. 2014;19(4):346–362

Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. (2020, Sexual Assault of Young Children as Reported to Law Enforcement.

David Finkelhor, Anne Shattuck, Heather A. Turner, & Sherry L. Hamby, *The Lifetime Prevalence of Child Sexual Abuse and Sexual Assault Assessed in Late Adolescence*, 55 *Journal of Adolescent Health* 329, 329-333 (2014)

Gavey, N. (2014). Sexual Violence. In: Teo, T. (eds) *Encyclopedia of Critical Psychology*. Springer, New York, NY.

Lippy C, DeGue S. Exploring alcohol policy approaches to prevent sexual violence perpetration. *Trauma Violence Abuse*. 2014 Epub ahead of print.

Miller, E., Jones, K. A., Ripper, L., Paglisotti, T., Mulbah, P., & Abebe, K. Z. (2020). An Athletic Coach-Delivered Middle School Gender Violence Prevention Program: A Cluster Randomized Clinical Trial. *JAMA pediatrics*, 174(3), 241–249.

Morgan, R. E., & Truman, J. L. (2019). Criminal victimization, 2018. *Bureau of Justice Statistics*, 845, 11-18.

Michael Planty, Langton Lynn, Christopher Krebs, Berzofsky Marcus, Hope Smiley-McDonald

Female Victims of Sexual Violence, 1994–2010. U.S.. (2013). Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, Washington, DC.

Jason Schnittker.(2022). What makes sexual violence different? Comparing the effects of sexual and non-sexual violence on psychological distress. *Mental Health* 2. 100-115.

Storer, H. L., Casey, E., & Herrenkohl, T. (2016). Efficacy of Bystander Programs to Prevent Dating Abuse Among Youth and Young Adults: A Review of the Literature. *Trauma, Violence, & Abuse*, 17(3), 256–269.

Storer, H. L., Casey, E., & Herrenkohl, T. (2016). Efficacy of Bystander Programs to Prevent Dating Abuse Among Youth and Young Adults: A Review of the Literature. *Trauma, Violence, & Abuse*, 17(3), 256–269.

Testa RJ, Sciacca LM, Wang F, et al.: Effects of violence on transgender people. *Professional Psychological Research Practice* 2012;43:452–459

Zoran Stojanov, Gareth J. Treharne, Katie Graham, Nicola Liebergreen, Rachel Shaw, Madeline Hayward & Melanie Beres (2021) Pro-social bystander sexual violence prevention workshops for first year university students: perspectives of students and staff of residential colleges, Kōtuitui: New Zealand Journal of Social Sciences Online, 16:2, 432-447.

Unhoused Youth

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Scope of the Issue: National Data

The term homelessness is often considered to refer to a person without a permanent home, and elicits visions of a person living outside, but further clarification of this experience is needed. Dividing this experience into three categories allows researchers to examine different facets of risk; first, people without a place to reside, people experiencing persistent poverty leading to lack of access to permanent housing, and individuals who have lost their housing due to personal, social, or environmental conditions (Sleet, & Francescutti, 2021). By examining these three categories, meaningful intervention and prevention strategies can be explored, and further understanding of the impact of insecure housing has on those who experience this phenomenon. While stereotypes may focus on adults, youth and children experience homelessness as well. Annually, more than four million youth and young adults experience homelessness in the United States (Morton, et.al., 2018). Just under 20% or 700,000 of these youth and young adults are unaccompanied minors, meaning they are not accompanied by a parent or guardian, or experiencing homelessness as part of a family unit. Additionally, in a single night count conducted in 2022 by the Annual Homelessness Assessment Report, over 30,000 unaccompanied youth were counted as homeless on a single night (The U.S. Department of Housing and Urban Development, 2022). Over 90 percent of these youth were between the ages of eighteen and twenty-four, while the remainder were under the age of 18 (The U.S. Department of Housing and Urban Development, 2022). Due to changes in identity questions on national questionnaires, comparison

on gender longitudinally can be difficult, although current questionnaires offer more inclusive data for current planning efforts. Unaccompanied youth differ from the overall population in gender, and race; and are more likely to report their racial identity as Black (44%) and are more likely to identify as female (The U.S. Department of Housing and Urban Development 2022). According to the U.S. Department of Housing and Urban Development, of those experiencing homelessness in 2021, it is estimated that the majority (61%) can access sheltered locations, the remainder report sleeping in unsheltered locations on the street, in buildings that are abandoned, and other locations deemed unfit for human habitation.

The need to prevent homelessness or intervene in instances of insecure housing is deeply supported in the literature. The evidence suggesting the experience of homelessness during formative years is associated with mental and physical health concerns such as infectious disease, dental concern, substance use, physical injury, and social problems has been well established (Kulik, et. al., 2011, Gultekin, et.al., 2019, Hodgson, et.al., 2013).

Additionally, youth who experience homelessness are at risk of experiencing violence and adversely related outcomes, early pregnancy, and a shortened lifespan (Auerswal, et.al., 2016, Hodgson et.al., 2013, Medlow et.al., 2014). Not only does this experience have a lifelong impact on behavioral and mental health, but also impacts long term ability to find stable employment opportunities and is associated with shortened lifespan (Medlow et.al., 2014). .

Youth carry risk and protective factors through their life span. Experiencing homelessness in childhood, adolescence or young adulthood may have a lifelong

impact on housing experience and increase likelihood of other negative life experiences later in life . Experiencing homelessness in childhood or youth has been found to be inversely associated with experiencing housing stability as an adult (Parpouchi, Moniruzzaman, & Somers, 2021). The skills and experiences fostered in youth and young adults experiencing homelessness, are not the traditional skills that prepare them for a successful career such as emotional regulation, academic skills, or social skills, rather their experiences prepare them for life on the streets (Helfrich, et.al., 2006). Additionally, the experience of homelessness in children, youth, and young adults is correlated with lower educational attainment, adverse mental health outcomes such increased mental illness related disability, and long-term social impact in terms of increased reliance on welfare for women (Cobb-Clark & Shu, 2017). According to federal data in the 2016-2017 school year, the national average graduation rate for homeless students was 64% while the overall national average was close to 90% (National Center for Education Statistics, 2023). Social impact does not stop at reliance on safety net supports, but youth who have experienced homelessness experience an increased correlation with committing either a violent or property crime at some point during their lifetime (National Center for Education Statistics, 2023).

Much like other risk factors, the younger the child and more consistent the exposure to homelessness the larger the suggested impact. The experience of homelessness in infancy and children is associated with developmental delays (Hasket, et.al., 2016). This suggests earlier intervention is key, and multigenerational support may be vital to supporting teenage parents experiencing homelessness. Additionally, the experience

of homelessness before the age of 26 was independently and significantly associated with physical health outcomes such as asthma, depression, and alcohol use disorder (Oppenheimer, et.al., 2016). The impact of experiencing homelessness not only impacts the skills learned, but literature suggests this experience is associated with lower educational attainment and those who do experience homelessness.

Scope of the Issue: Regional Concerns

In West Virginia, A child is identified as homeless when his or her nighttime residence is one of the following: sheltered, doubled up, unsheltered, or a hotel/motel. According to the West Virginia Department of Education, there were as many as 10,417 youth experiencing homelessness during the 2019-2020 school year and 10,552 during the 2018-2019 school year, which is an increase of about 14 percent since the 2014-2015 school year (8,959).

While perhaps not as visible as non-rural counties, youth homelessness is as common in rural counties as their non-rural counterparts, and youth experiencing homelessness are at unique risk for increased lack of access to appropriate services (Morton, et.al., 2017). Youth and youth adults aged eighteen to twenty-five experience homelessness in rural areas at a rate of 9.2% while those in Urban areas experience homelessness at a rate of 9.6%, and when compared with their adolescent counterparts, rural adolescents, aged thirteen to seventeen years old experience homeless at a rate of 4.4% in rural counties, while those in urban counties experience homelessness at a rate of 4.2% (Morton, et. al., 2017).

The visibility of youth experiencing homelessness is likely influenced by culture, and accessibility of outdoor/non-residential sleeping resources. When compared with non-rural youth and young adults, those residing in rural counties were twice as likely to be staying with others, half as likely to be staying in shelters, and were more likely to sleep outside (Morton, et.al., 2018). Not only does rurality impact behavior, but the size of the county has also been found to be correlated to sleeping arrangements. Youth in smaller rural counties were more likely to sleep outside in either tents, or outbuildings such as barns, leaving the experience of homelessness often overlooked due to lack of visibility(Morton, et al., 2018). Almost half (40%) of youth residing in smaller counties reported staying with other, while the remaining reported being unsheltered (28%), or sheltered (23%) (The US Department of Housing and Urban Development, 2022). Without relying on formal services, this makes the count of individuals experiencing homelessness in small rural counties difficult to identify.

Risk and Protective Factors

Emerging as the most prevalent risk factors associated with homelessness include personal identity, engagement with the foster care system, and family structure. Much like other risk and protective factor research, current literature is emerging and may change with time. Personal identity includes gender, sexual, and political identity while family structure is influenced by the socio economic and housing experience of the family unit.

Personal Identify

Youth self-identifying as lesbian, gay, bisexual, transgender, questioning or Intersex (LGBTQIA+) are significantly more likely to experience a form of homelessness when compared with their straight peers. Youth who identify as LGBTQIA+ experience a 120% higher risk of experiencing homelessness (Coolhart, et.al., 2017). While only representing a minority of the overall population, youth who identify as LGBTQIA+ make up somewhere between 20%-50% of the 4.2 million youth experiencing homelessness (Coolhart, et.al., 2017). These data may not fully represent the scope of the issue, as some questionnaires do not even ask about the sexual identity of youth experiencing homelessness. Of youth experiencing homelessness and receiving services in homeless shelters up to 40% identify as LGBTQIA+. The lack of identity affirming support may compound risk for youth experiencing homelessness.

Youth entering foster care due to unsafe conditions produced by lack of acceptance of their identity, are often left without identity affirming support within foster care or shelter living conditions. Up to half (30-50%) of shelters lack on site LGBTQIA+ staff and use policy within the shelter guided by heteronormative principles, with cis-normative bias (Choi, et.al., 2015).

Emerging Practices

Although many programs have been developed through the years to support individuals experiencing homelessness, unique needs of youth have often been overlooked.

Additionally, the needs of LGBTQIA identifying individuals are often left out of current strategies. While only a small number of studies have indicated slight reductions in youth homelessness, few programs have shown effectiveness in preventing homelessness but emerging more rigorous evidence on a multi-pronged approach using housing, mentorship, and outreach models have shown success. Currently, there is little evidence on program impact for specific subpopulations including gender identity, or rurality.

Subsidized Housing and Transitional Living Models

Subsidized housing provides supportive housing opportunities aimed at increasing sustainability for individuals who are unhoused. Young adults may age out of foster care, leaving them with little to no ongoing housing support, as well as behavioral health and life skill supports such as job training, case management, and other various supports that help young adults on their path to living independent lives(Lim, et.al., 2017). Gap filling support such as housing supports, are associated with reduced rates of mental illness, reduced substance use rates, and increased educational achievement (Lin, et.al, 2017).

Transitional living programs are designed to help young people experiencing homelessness develop skills and knowledge to transition to self-sufficient living. According to Health and Human Services, programs can rely on shelter in the form of, group homes, maternity group homes, host family homes, and supervised apartments. Transitional living programs have shown positive impacts in long term housing stability,

economic stability, and health and safety (Skemer, & Jacobs, 2016). However, data in the areas of education, and criminal involvement are still emerging.

Transitional Living programs are associated with multiple positive outcomes for young adults who have experienced foster care, and homelessness (Skemer, & Jacobs, 2016).

Qualitative research suggests that not only are the positive impacts seen in data, but also recognized by participants themselves. When focusing on the transitional living programs themselves, participants noted that the services, support, and the environment had a big impact on them. Youth engaging in transitional living programs noted the development of life skills, the meaning of provision of transportation, and beneficial support of job assistance (Giffords, et.al., 2007). Additionally, when designed to address concern across multiple domains, transitional living programs can see success across a broad range of outcomes, which are amplified as the amount of time in the program increases (Skemer, & Valentine, 2016).

Tailored Case Management and Support

Supported by federal programs, in an effort to provide support for hard-to-reach populations such as youth experiencing homelessness, tailored case management provides resources and support uniquely combined for the participant in need. Through legislation like the Runaway Youth Act and the Homeless Emergency Assistance and Rapid Transition to Housing Act, RHYA and the HEARTH Act, policymakers could also consider appropriating resources to allow for tailored outreach strategies and provision of services in rural communities, building on lessons from pilots funded by Health and Human Services HHS and the department of Department of Housing and Urban

Development HUD. Congress should also consider supporting the evaluation of services delivered in rural communities to ensure interventions are meeting the needs of this group of young people.

Family Based Intervention

Studies of family interventions involved varying degrees of rigor, but studies generally showed promising results for outcomes related to youth well-being and behavioral health, but little is known about direct effects of these interventions on preventing or reducing youth homelessness. Family Based Intervention involves therapeutic interventions for families including Ecologically Based Family Therapy, Support to Reunite, Involve, and Value Each (STRIVE), and Functional Family Therapy. Aimed at targeting root cause of homelessness including risky or unhealthy behaviors, the nature of this intervention is customized and highly tailored to unique needs. Simple pre and post design study indicates interventions of this nature impact mental health concerns, justice involvement, and dissociation with antisocial peers positively (Davis, 2015). Additionally, participant feedback indicates this form of intervention supports positive changes in family interaction, increased and improved communication, and a decrease in family conflict (Harper, 2015).

References:

Auerswald, C. L., Lin, J. S., & Parriott, A. (2016). Six-year mortality in a street-recruited cohort of homeless youth in San Francisco, California. *PeerJ*. 4:e1909.

Cobb-Clark, D., Zhu, A., (2017).. Childhood homelessness and adult employment: the role of education, incarceration, and welfare receipt. *Journal Population Economics*. 30.893–924.

Choi, S., Wilson, B., Shelton, J., Gates, G., (2015). *Serving Our Youth 2015: The Needs and Experiences of Lesbian, Gay, Bisexual, Transgender, and Questioning Youth Experiencing Homelessness*. Los Angeles, CA: The Williams Institute with True Colors Fund.

Coolhart, D., Brown, M., (2017).The need for safe spaces: Exploring the experiences of homeless LGBTQ youth in shelters. *Child Youth Service*. 82. 230–238.

Cronley, C., Jeong, S., Davis, J., Madden, E., (2015). Effects of homelessness and child maltreatment on the likelihood of engaging in property and violent crime during adulthood. *Journal of Human Behavioral Social Environment*.25. 192–203.

Davis, M., Sheidow, A.,McCart, M., (2015). Reducing Recidivism and Symptoms in Emerging Adults with Serious Mental Health Conditions and Justice System Involvement. *Journal Behavioral Health Service Research* 42, 172–190.

Giffords, E., Alonso, C., & Bell, R., (2007). A Transitional Living Program for Homeless Adolescents: A Case Study. *Child and Youth Care Forum*. 36. 141-151.

Greene,J., Ringwalt, C., (1998)Pregnancy among three national samples of runaway and homeless youth. *Journal of Adolescent Health*, 23 (6), 370-377.

Heerde, J., Hemphill, S., Scholes-Balog, K., (2014). 'Fighting'for survival: A systematic review of physically violent behavior perpetrated and experienced by homeless young people. *Aggression and Violent Behavior*, 19. 50-66.

Gultekin, L., Brush, B., Ginier, E., Cordon, A., Dowdell, E., (2019). Health risks and outcomes of homelessness in school-age children and youth: a scoping review of the literature. *Journal of School Nursing*. 36. 10–8.

Harper, G., Tyler, D., Vance, G., Jennifer D., (2015). A Family Reunification Intervention for Runaway Youth and Their Parents/Guardians: The Home Free Program. *Child and Youth Services* 2. 36. 150-172.

Haskett, M., Armstrong, J., Tisdale J., (2016). Developmental status and social–emotional functioning of young children experiencing homelessness. *Early Childhood Education Journal*. 44.119–25.

Helfrich C., Aviles A., Badiani C., Walens D., Sabol P., (2006). Life skill interventions with homeless youth, domestic violence victims and adults with mental illness. *Occupational Therapy Health Care*. 20. 189–207.

Hodgson, K., Shelton, K., Van Den, B., Los F., (2013). Psychopathology in young people experiencing homelessness: a systematic review. *American Journal of Public Health*. 103.24–37.

Kulik D., Gaetz S., Crowe C., Ford-Jones E. (2011). Homeless youth's overwhelming health burden: a review of the literature. *Pediatric Child Health*.16.43–7.

Lim, S., Singh, T. P., & Gwynn, R. C. (2017). Impact of a supportive housing program on housing stability and sexually transmitted infections among young adults in New York City who were aging out of foster care. *American Journal of Epidemiology*, 186(3), 297-304.

Medlow, S., Klineberg, E., Steinbeck, K.. (2014).The health diagnoses of homeless adolescents: A systematic review of the literature. *Journal of Adolescence*. 37(5). 521-542.

Morton, M. H., Dworsky, A., Matjasko, J. L., Curry, S. R., Schlueter, D., Chávez, R., & Farrell, A. F. (2018). Prevalence and Correlates of Youth Homelessness in the United States. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 62(1), 14–21.

Morton, M. H., Dworsky, A., Matjasko, J. L., Curry, S. R., Schlueter, D., Chávez, R., & Farrell, A. F. (2018). Prevalence and Correlates of Youth Homelessness in the United States. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 62(1), 14–21.

National Center for Education Statistics. (2023). Public High School Graduation Rates. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. Retrieved February 10, 2023.

Oppenheimer, S. C., Nurius, P. S., & Green, S. (2016). Homelessness History Impacts on Health Outcomes and Economic and Risk Behavior Intermediaries:

New Insights from Population Data. *Families in society : the journal of contemporary human services*, 97(3), 230–242.

Parpouchi, M., Moniruzzaman, A. & Somers, J., (2021). The association between experiencing homelessness in childhood or youth and adult housing stability in Housing First. *BMC Psychiatry* 21, 138.

Sleet, D. A., & Francescutti, L. H. (2021). Homelessness and Public Health: A Focus on Strategies and Solutions. *International journal of environmental research and public health*, 18(21), 11660.

Skemer, M., Jacobs, E., (2016). Striving for Independence: Two-Year Impact Findings from the Youth Villages Transitional Living Evaluation. New York: MDRC, Available at SSRN: <https://ssrn.com/abstract=2898965>

Skemer, Melanie and Jacobs, Erin, Striving for Independence: Two-Year Impact Findings from the Youth Villages Transitional Living Evaluation (November 21, 2016). New York: MDRC, Available at SSRN: <https://ssrn.com/abstract=2898965>

The U.S. Department of Housing and Urban Development (2022). The 2022 Annual Homeless Assessment Report (AHAR) to Congress. <https://www.huduser.gov/portal/datasets/ahar/2022-ahar-part-1-pit-estimates-of-homelessness-in-the-us.html>.

Music as an Intervention for Transitional Age Youth

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Introduction

Music as an intervention has a large body of literature supporting its efficacy in improving regulatory, cognitive, and emotional concerns, along with strengthening pathways which facilitate a connection between the brain and body (Altenmuller & Schlaug, 2015). There are multiple types of music interventions, and each can be adapted to community and non-therapeutic settings (Johnson & Heiderscheidt, 2018). These include receptive music interventions, improvisation of music, re-creative music interventions, and composition. Each type of music intervention has physiological and emotional benefits, and promotes brain plasticity through skill development (Ripolles, et al., 2016). Transitional age youth, i.e., youth between ages 16-24 who are in the process of transitioning into adulthood independence, can benefit from activities informed by these four types of interventions through neuroplasticity and emotion regulation (Altenmuller & Schlaug, 2015).

Types of Music Interventions

Receptive Music Interventions

Receptive music interventions involve taking in music as a medium. This can include listening to music, discussing lyrics and themes, analyzing lyrics through a personal and emotional lens, and exploring emotional reactions to music. Receptive music interventions involve the act of receiving, or listening to, music with the intention of increasing relaxation or regulation and emotional response and awareness (Grocke &

Wigram, 2007; Wheeler, 2015). Examples of interventions may include listening to music to evoke a relaxation or regulatory response in the nervous system, using music as a guided imagery technique for relaxation and regulation, and using music sounds or lyrics to evoke an emotional response. Interventions targeting emotional awareness may include examining lyrics of a song through an individual's lens of personal and emotional experience. Being mindful of and discussing emotions felt throughout a song and identifying lyrics which evoked specific emotional responses enhances the individual's ability to become aware of the connection between somatic sensations, emotions, and emotional content (Grocke & Wigram, 2007).

Improvisational Music Interventions

Interventions which use music improvisation involve the individual playing an instrument spontaneously, with no set rule or expectation (Wheeler, 2015; Wigram, 2004). For individuals with a prior skill in playing an instrument, this can involve playing their learned instrument spontaneously, encouraging the individual to use their improvisation to portray or express their emotional experience (Wigram, 2004). For those without a background in music or instrumental skill, utilizing percussions such as a hand drum can be effective in facilitating regulation and emotional expression as well (Altenmuller & Schlaug, 2015). This entails an individual drumming a rhythm with their hands, and improvising how the rhythm evolves into a systemic beat. Additionally, improvisation of percussion instruments such as this are useful in a group setting, where each member must drum to the rhythm of the group as the beat evolves (Altenmuller & Schlaug, 2015).

Re-Creative and Compositional Music Interventions

Re-creative interventions involve learning an instrument, learning voice techniques, and learning how to play or sing prewritten songs (Wheeler, 2015), while compositional interventions involve creating and writing instrumental music or lyrics (Wheeler, 2015). These interventions can be used to gain skill development, improve self-efficacy, and foster emotional awareness and regulation (Wheeler, 2015).

Efficacy of Music Interventions

Music as an intervention has empirical support in its efficacy for treatment of depression, anxiety, stress, and posttraumatic stress disorder, and may be a more accessible treatment for such mental health concerns due to its wide adaptability (Landis-Shack, Heinz, & Bonn-Miller, 2017). The mechanisms of music interventions exist in neurological and hormonal changes associated with music interventions across all four types of interventions discussed above.

Mechanisms

Using music as an intervention for mental health concerns including physiological stress responses associated with traumatic stress or adverse childhood experiences is supported (Landis-Shack, et al., 2017). Because of humans' relationship with music, music interventions have been shown to address emotional and physiological stress responses. Emotion dysregulation caused by an overactive physiological stress response can be regulated using music interventions which target emotional grounding, mindfulness, emotional awareness, and relaxation (Beer & Birnbaum, 2021). When

intervening in the processes involved in chronic stress, anxiety, and depression in transitional age youth, it is imperative to facilitate nervous system (physiological and emotional) regulation, connection, and self-efficacy. Music interventions are able to target all three of these goals in a community-based setting.

Each type of music intervention has the ability to target and regulate the central nervous system and stress hormones (Ripolles, et al., 2016). When utilizing receptive music interventions, listening to music and engaging in mindfulness can regulate stress hormones and activate the parasympathetic nervous system (Altenmuller, et al., 2015; Wheeler, 2015). Engaging individuals in both listening to and examining lyrics or emotional aspects of music can assist with developing emotional awareness including the identification and processing of the

emotional experience (Altenmuller, 2015; Ripolles, 2016). When emotional awareness is learned and improved over time, individuals are better able to identify, process, and regulate difficult emotions in the future. This is related to neuroplasticity, or brain plasticity (Ripolles, 2016). Neuroplasticity is the ability for brain pathways to strengthen when new behaviors are learned, and is directly related to skill building. The more an individual practices a behavior, such as identifying and regulating a difficult emotion, the easier this behavior becomes in the future. Music interventions such as receptive interventions are effective in facilitating the learning of such skills until they are more established in the individual's skill repertoire. (Ripolles, 2016). Improvisational, re-creative, and compositional interventions are also effective in facilitating the regulation of difficult and highly activated emotions. Playing an instrument, whether a song that is prewritten or self-composed, allows the mind to focus on one task which utilizes multiple

areas of the brain (Altenmuller & Schlaug, 2015; Ripolles, 2016). This task and focus allows for neuroplasticity to engage, and can actively regulate the physiological experience by shifting focus and channeling the emotion into a form of expression, which allows for processing (Altenmuller & Schlaug, 2015; Wheeler, 2015). The more this is practiced, the stronger regulatory pathways become in the brain (Ripolles, 2016).

Altenmuller & Schlaug (2015) discusses a change in mood and stress hormonal levels in the body when utilizing music interventions consistently. Hormones such as cortisol, interleukin-6, dopamine, and serotonin levels are all regulated (stress hormones decreased with mood hormones increased) when engaging in music interventions intentionally, and with consistent use can become more regulated at baseline (Altenmuller & Schlaug, 2015). Altenmuller & Schlaug (2015) also discuss brain structure differences in musicians who have practiced music consistently, which include a change in structure in the amygdala, hippocampus, and midbrain, all which are associated with the stress detection and response process (Altenmuller & Schlaug, 2015). Decreasing size and/or activation of these structures is associated with more automaticity of emotion regulation and accurate threat detection (Altenmuller & Schlaug, 2015).

Cooking and Nutrition as an Intervention for Transitional Age Youth

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Introduction

Nutritional health and gut microbiota has been shown to be connected to inflammation in the body, the presence of stress hormones, and can impact mood and energy levels (Limbana, et al., 2020). Improvement of cooking skills (Jarpe-Ratner, et al., 2016; Clark, et al., 2015) and increased knowledge of nutritional information (Jarpe-Ratner, et al., 2016; Utter, et al., 2015) are both associated with higher intake of nutritional food options such as fruits, vegetables, whole grains, and omega-3 fatty acids. Cooking as a skill in general can increase self-efficacy and independence in the transitional age youth population (Clark, et al., 2015; Jarpe-Ratner, et al., 2016; Utter, et al., 2015).

Chronic Stress and Nutrition

For individuals who experience chronic stress associated with trauma or adverse childhood experiences, nutrition can play a role in regulating physiological stress responses and inflammation (Mottershead & Ghisoni, 2021). Mottershead and Ghisoni (2021) discuss the systematic inflammation that occurs as a response to chronic stress or traumatic/adverse events and the associated stress hormones present in the body. The activation of stress hormones and the immune system to fight off potential threats to an individual's physical or emotional well-being is an evolutionary process that becomes chronic with chronic exposure to stressful or traumatic events. This inflammation becomes chronic and leads to fatigue, malaise, and more complex health complications such as diabetes (Mottershead & Ghisoni, 2021). The introduction of a nutritious and anti-inflammatory diet can promote anti-inflammatory properties in the body which in turn disrupt the physiological effects of trauma and chronic stress

(Mottershead & Ghisoni, 2021). In a study examining diet and exercise as a moderator for the development of posttraumatic stress disorder (PTSD) after a traumatic event, diet had a direct impact on the reduction of PTSD and depressive symptoms, and an improved perception of relationship quality

(Smith-Marek, et al., 2016). Smith-Marek, et al. (2016) argues that an emphasis on a nutritional diet is efficacious for individuals with a history of trauma due to the presence of stress hormones and inflammation in the body for those with his history.

Cooking Skills

Improved skill in cooking can lead to self-efficacy and confidence, as well as improved knowledge in nutritional needs and adherence (Mottershead & Ghisoni, 2021). Several studies have shown an association between education on cooking skills and both self-efficacy and increased nutritional intake (Clark, et al., 2015; Jarpe-Ratner, et al., 2016; Mottershead & Ghisoni, 2021; Oakley, et al., 2017; Utter, et al., 2015). Learning to cook and engaging in group cooking or group meals can serve as a source for connection and self-efficacy (Oakley, et al., 2017).

Summary

Individuals with mental health concerns or a history of experiencing trauma or childhood adversity likely experience dysregulation in their physiological stress responses, which leads to systemic inflammation in the body. Inflammation is associated with chronic disease, pain, and fatigue. Incorporating a nutritious and anti-inflammatory diet can control the level of inflammation in the body and regulate stress hormones, leading to a

more regulated nervous system. Educating children and adolescents on cooking skills, engaging them in group cooking and meal sharing, and teaching how to read nutrition labels can increase their self-efficacy in the skill of cooking and results in their intake of more nutritional food options.

References

Clark, A., Bezyak, J., & Testerman, N. (2015). Individuals with severe mental illness have improved eating behaviors and cooking skills after attending a 6-week nutrition and cooking class. *Psychiatric Rehabilitation Journal*, 28(3), 276-278.

Jarpe-Ratner, E., Folkens, S., Sharma, S., Daro, D., & Edens, N.K. (2016). An experiential cooking and nutrition education program increases cooking self-efficacy and vegetable consumption in children grades 3-8. *Journal of Nutritional Education and Behavior*, 48, 697-705.

Limbana, T., Khan, F., & Adler, J.R. (2020). Gut microbiome and depression: How microbes affect the way we think. *Cureus*.

Mottershead, R. & Ghisoni, M. (2021). Horticultural therapy, nutrition, and posttraumatic stress disorder in post-military veterans: Developing non-pharmaceutical interventions to complement existing therapeutic approaches. *PubMed Central*.

Oakley, A.R., Nelson, S.A., & Nikols-Richardson, S.M. (2017). Peer-led culinary skills intervention for adolescents: Pilot study of the impact on knowledge, attitude, and self-efficacy. *Journal of Nutritional Education and Behavior*, 49, 852-857.

Smith-Marek, E.N., Durtschi, J., Brown, C., & Dharnidharka, P. (2016). Exercise and diet as potential moderators between trauma, posttraumatic stress, depression, and relationship quality among emerging adults. *The American Journal of Family Therapy*, 44(2), 53-66.

Utter, J., Denny, S., Lucassen, M., & Dyson, B. (2015). Adolescent cooking abilities and behaviors: Associations with nutrition and emotional well-being. *Journal of Nutritional Education and Behavior*, 48, 35-41.

Yoga and Mindfulness as an Intervention for Transitional Age Youth

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Introduction

Transitional Age Youth (TAY) is defined as youth ages 16-25 who are in the process of transitioning from the pediatric population into adulthood (youth.gov). Individuals in the TAY population are often transitioning or aging out of foster care services or are becoming ineligible for care under pediatric services. Transitioning from youth to adulthood comes with a myriad of changes and responsibilities; employment, financial independence, life skills, and housing are some of the logistical needs of this population while interpersonal relationships, connection, self-efficacy, and identity formation are

some of the emotional needs expressed by this population (Armstrong-Heimsoth, Hahn-Floyd, Williamson, Kurka, Yoo, Rodriguez De Jesus, 2020). TAY are at higher risk for psychiatric disorders, and anywhere between 21-80% of TAY meet criteria for a Posttraumatic Stress Disorder (PTSD) diagnosis (Burke, Firmin, Wilens, 2022). The Stress Diathesis Model theorizes that there are many existing vulnerabilities in an individual's physiological, genetic, environmental, temperamental, and behavioral histories which have an intersectional role in one's risk for psychopathology related to stress. The inherent risk of stress-related psychopathology exists in TAY as the nature of this population involves adverse childhood experiences including nontraditional family settings, histories of abuse, and/or chronic adverse events such as emotional neglect (youth.gov). Traumatic events and chronic adverse experiences alter the brain and body's reaction to potential threats. Literature suggests that practicing yoga and mindfulness meditation consistently can alter the brain and body's threat responses affected by traumatic or adverse experiences. Interventions and programming informed by a trauma-based theoretical framework, including trauma-informed yoga and mindfulness meditation, has empirical support for benefiting this population's emotional needs

and is hypothesized to aid in making skill development more attainable. (Meister & Juckel, 2017).

Trauma and Neurology

Experiencing trauma changes the neurology and biology of an individual. Whether a single event such as a physical attack; sexual assault; car accident; or any event which

involves a threat of death or serious injury, or a complex series of traumatic events, such as adverse childhood experiences including chronic invalidation; emotional abuse; neglect; or abandonment, the brain and body endure systemic changes (Solomon, Heide, 2005). These changes are located in areas of the brain and body which dictate responses to potential threat, including the adrenal system, the hypothalamic-pituitary-adrenal (HPA) axis, the amygdala, and the hypothalamus (Douglas, 2006).

The human body's natural defense to stress is activated with stress hormones such as epinephrine (adrenaline), norepinephrine, and cortisol (Solomon, 2005). When the body perceives a threat, the adrenal system is triggered to increase the level of epinephrine and norepinephrine, which are both involved in the fight or flight response. Increased output of epinephrine from the adrenal system affects visceral body functions including "heart rate, blood pressure, and energy levels." These functions are autonomous activities that are required for the body to sustain life, and in times of stressful or traumatic experiences, increased epinephrine increases these functions so that the body is prepared to fight the oncoming threat, or flee from the perceived danger (Solomon, 2005). In addition to epinephrine, the output of norepinephrine is also increased during traumatic or adverse events. Norepinephrine is responsible for improving mental alertness and focus, which in accordance with increased visceral functioning from epinephrine coordinates the mind and body to prepare for action (Solomon, 2005).

In addition to the adrenal system, the hypothalamic-pituitary-adrenal (HPA) axis is activated during a perceived threat to increase the level of cortisol present in the body. Cortisol is a hormone associated with stress which increases blood sugar levels,

suppresses the immune system, and speeds the rate of metabolism (Solomon, 2005). When stressful events including traumatic and adverse experiences are recurrent or chronic, levels of cortisol tend to be consistently atypical, which causes physiological changes in the body in the affected areas including blood sugar and immune responses (Douglas, 2006). The effects of chronically atypical cortisol levels are also present in neurological functioning and impair an individual's ability to discriminate stressful from non-stressful situations (Douglas, 2006).

Yoga as a Treatment for Trauma

Yoga is a centuries-long meditative and spiritual discipline which originated in the Hindu religion and way of life. It includes "breath control, simple meditation, and the adoption of specific bodily postures" and has been adopted in Western culture as a practice for improving physical and emotional health and wellness (Kaley-Isley, 2016). Consistent practice of yoga has been shown to reduce symptoms of anxiety and depression, improve self-awareness and relaxation, and has been adapted for a population of individuals affected by traumatic events and/or chronic adverse experiences (Kaley-Isley, 2016). Trauma-focused or trauma-informed yoga teachings have been shown to reduce physiological manifestations of traumatic experiences, the mechanisms of which are being examined thoroughly to show the potential of yoga and meditation to heal the body and brain systems responsible for chronic trauma symptoms (Dunn, 2008).

In a metaanalysis examining the mechanisms of change involved in practicing yoga, it was found that overall, consistent yoga practice can improve cardiorespiratory functioning,

stimulate the parasympathetic nervous system, reduce the activity in the sympathetic nervous system, regulate cortisol levels, and decrease other stress responses such as the HPA axis (Dunn, 2008). Several studies have been successful in determining the potential therapeutic effects of yoga on psychopathology (Meister & Juckel, 2017). Outcomes of yoga as a treatment of psychopathology including trauma include improvements in mood, higher rates of relaxation, and decreased perception of stress and anxiety (Dunn, 2008). These successful changes in behavioral and psychological manifestations are directly related to yoga's ability to alter an individual's stress responses including regulation of cortisol levels, and increased activity in the parasympathetic nervous system, which slows production of epinephrine and norepinephrine inherent in the fight or flight response. Emotionally, yoga also offers increased perception of self-control and self-satisfaction due to strengthening of the body and increased confidence with improved performance during challenges (Kinser, Bourguignon, & Whaley, 2013). Streeter, Gearhart, & Saper (2012) discuss the importance of yoga as it increases functioning in the cardiovascular and cardiorespiratory system, which increases oxygenation and regulates heart rate and blood pressure.

Resources

Armstrong-Heimsoth, A., Hahn-Floyd, M., Williamson, H.J., Kurka, J.M., Yoo, W., Rodriguez De Jesus, S., 2020. Former foster system youth: Perspectives of transitional supports and programs. *Journal of Behavioral Health Services and Research*, 287-305.

Burke, C.W., Firmin, E.S., Wilens, T.E., 2022. Systematic review: Rates of psychopathology, substance misuse, and neuropsychological dysfunction among transitional age youth experiencing homelessness. *American Journal of Addictions*, 31(6), 523-534.

Douglas, J., 2006. Traumatic stress: Effects on the brain. *Dialogues in Clinical Neuroscience*, 8(4), 445-461.

Kaley-Isley, L., 2016. Multiple pathways: Yoga as therapy, yoga in healthcare. *PsyCRITIQUES*, 61(23).

Kinser, P.A., Bourguignon, C., Whaley, D., 2013. Feasibility, acceptability, and effects of gentle Hathaway yoga for women with major depression: findings from a randomized controlled mixed-method study. *Arch Psychiatric Nurses*. 27 137-147.

Meister, K., Juckel, G., 2017. A systematic review of mechanisms of change in body-oriented yoga in major depressive disorders. *Pharmacopsychiatry*, 51, 73-81

Solomon, E.P., Heide, K.M., 2005. The biology of trauma: Implications for treatment. *Journal of Interpersonal Violence*, 20(1), 51-60.

Streeter, C.C., Gearhart, P.L., Saper, R.B., 2012. Effects of yoga on the autonomic nervous system, gamma-aminobutyric-acid, and allostasis in epilepsy, depression, and post-traumatic stress disorder. *MEd Hypotheses*, 78, 571-579.

Gardening as an Intervention for Transitional Age Youth

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Introduction

Interventions informed by gardening and nature have been used to target mental health concerns such as anxiety and depression for decades. In a systematic review of the literature examining the efficacy of gardening-based interventions for mental health concerns, it was found that all ten studies reviewed showed a reduction in symptoms associated with both depression and anxiety, and had benefits across multiple domains of functioning (Clatworthy, et al., 2013). Gardening has been used in hospital and community settings to promote mental health benefits and overall wellness. Thompson (2018) discusses the mechanisms of the mental health benefits of gardening through a biopsychosocial lens. Utilizing gardening-based interventions in the transitional age youth population can provide the mental health benefits associated with gardening and nature and promote overall well-being by regulating the physiological stress response system and providing social interaction and community involvement (Thompson, 2018). A recent study across multiple sites examining the efficacy of gardening interventions for individuals affected by long-term mental health concerns associated with the Covid-19 pandemic, such as persistent anxiety and depression, low quality of life, and difficulty with remaining present, replicated the benefits of gardening with the reduction of such symptoms (Yang, et al., 2022).

Benefits of Gardening Interventions

The act of gardening outdoors is associated with increased exercise, increased sunshine and subsequent vitamin D, a more nutritious diet, and the activation of the parasympathetic nervous system, which regulates stress hormones and inflammation in the body (Wimmer, 2022).

Gardening activities such as laying mulch, weeding, raking, and digging utilize muscle groups that increase blood flow to the extremities and allow for a full body exercise, which is associated with the regulation of stress hormones and the increase of mood stabilizing neurotransmitters (Wimmer, 2022; Yang, et al., 2022). Increased levels of sunshine increases vitamin D in the

body, which is associated with decreased depressive symptoms (Wimmer, 2022).

Literature has also been growing in the efficacy of nature in regulating the stress response system and inflammation, finding that interacting with naturally occurring phenomena such as plants and greenery evokes a parasympathetic response, regulating stress and inflammation (Jo, et al., 2019). Transitional age youth who have experienced trauma, chronic stress, and adverse childhood experiences would likely benefit from gardening as an intervention as it can regulate the nervous system's response to chronic stress, reduce symptoms associated with depression and anxiety, and when growing vegetables and fruit can show improvement in a nutritious diet (Thompson, 2018; Wimmer, 2022; Yang, et al., 2022).

Gardening is also efficacious in building and improving self-efficacy and social connection (Mygind, et al., 2019). In a systematic review of the benefits of nature and

gardening interventions for children and adolescents, over 65% of the studies reviewed showed a significant improvement in self-esteem, self-efficacy, self-concept, and resilience compared to the control group (treatment as usual or no treatment), with 8.6% showing improvements equal to the control group (Mygind, et al., 2019). Because gardening involves skill development, neuroplasticity is promoted in the brain, which leads to higher levels of confidence in the skill and can strengthen pathways for regulation. Learning the skill of gardening and watching the outcome of new growth is associated with self-efficacy and confidence.

References

Clatworthy, J., Hinds, J., & Camic, P.M. (2013). Gardening as a mental health intervention: A review. *Mental Health Review Journal*, 18(4), 214-225.

Jo, H., Song, C., & Miyazaki, Y. (2019). Physiological benefits of viewing nature: A systematic review of indoor experiments.

Mygind, L., Kjeldsted, E., Hartmeyer, R., Mygind, E., Bolling, M., & Bentson, P. (2019). Mental, physical, and social health benefits of immersive nature-experience for children and adolescents: A systematic review and quality assessment of the evidence. *Health & Place*, 58(19).

Thompson, R. (2018). Gardening for health: A regular dosage of gardening. *Clinical Medicine*, 18(3), 201-205.

Wimmer, L. (2022). Dig into the benefits of gardening. Mayo Clinic Health System.

Yang, Y., Ro., E., Lee, T., An, B., Hong, K., Yun, H., Park, E., Cho, H., Yun, S., Park, M., Yun, Y., Lee, A., Jeon, J., Jung, S., Ahn, T., Jin, H., Lee, K., & Choi, K. (2022). The multi-sites trial on the effects of therapeutic gardening on mental health and well-being. *International Journal of Environmental Research and Public Health*, 19(13), 8046.

Animal-assisted Interventions for Transitional Age Youth

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Animal-assisted Interventions

While literature is mixed on the efficacy of emotional support animals (Brooks, et al., 2018; Lass-Hennemann, et al., 2022), literature supports the evocation of positive emotions when interacting with pets or animals, and the efficacy of the use of animals alongside the psychotherapeutic process (Naste, et al., 2018). Animal-assisted interventions utilize animals to facilitate therapeutic goals (Naste, et al., 2018). Typically, horses and dogs are utilized as the animal of focus in such interventions and are used in various settings. Dogs are typically used in traditional mental health settings such as psychotherapy, with the dog being provided as both a comfort for the individual or a focus of psychological content. For example, the dog may play a role in psychotherapy by having the individual interact with the dog through training commands or brushing, or the dog may serve as someone for the individual to speak to about a traumatic event to allow for processing (O’Haire, et al., 2015). Horses are most commonly used in animal-

assisted interventions, by riding of the horse as an activity during therapeutic interventions or by interacting with the horse, i.e., grooming, talking to, or handling the horse (O'Haire, et al., 2015). It is conceptualized that animal-assisted interventions such as equine assisted therapy serve to add a focus for the affected individual that is neutral and elicits positive emotions, and increases a sense of purpose and connection (O'Haire, et al., 2015). Animals and pets have been shown to elicit positive emotions in those who interact with animals (Naste, et al., 2018). The increase of oxytocin, a hormone promoting attachment, when interacting with animals or pets elicits positive emotions.

Efficacy

Equine assisted therapy has shown a reduction in depression, anxiety, and interpersonal or social anxiety in traumatized youth (Kemp, et al., 2013). Animal-assisted therapy across both dogs and horses is highly associated with a reduction in depressive symptoms, shown in 60% of studies examined in a systematic review of its efficacy in treatment mental health concerns

(O'Haire, et al., 2015). In 50% of studies examined in the review done by O'Haire, et al. (2015), PTSD symptoms were reduced according to the Trauma Symptom Checklist for Children (TSCC). Additional findings in O'Haire et al. (2015) showed that anxiety symptoms were reduced in 40% of the studies examined, and attachment security was increased in 20% of those examined.

While efficacy for improvement of mental health concerns are mixed, O'Haire, et al. (2015) and Nevins, et al. (2013) showed a significant increase in self-efficacy and

quality of life for individuals utilizing animal-assisted interventions across both dogs and horses. Nevins, et al. (2013) found that in war veterans utilizing dogs for animal-assisted interventions, social anxiety was reduced and participants reported a reduction in their use of psychotropic medications for anxiety.

References

Brooks, H.L., Rushton, K., Lovell, K., Bee, P., Walker, L., Grant, L., & Rogers, A. (2018). The power of support from companion animals for people living with mental health problems: A systematic review and narrative synthesis of the evidence. *BMC Psychiatry*, 18, 12.

Kemp, K., Signal, T., Botros, H., Taylor, N., & Prentice, K. (2013). Equine facilitated therapy with children and adolescents who have been sexually abused: A program evaluation study. *Journal of Child and Family Studies*, 23, 558-566.

Lass-Hennemann, J., Schafer, S.K., Sopp, M.R., & Tanja, M. (2022). The relationship between attachment to pets and mental health: The shared link via attachment to humans. *BMC Psychiatry*, 22, 9.

Nevins, R., Finch, S., Hickling, E.J., & Barnett, S.D. (2013). The saratoga warhorse project: A case study of the treatment of psychological distress in a veteran of Operation Iraqi Freedom. *Advanced Mind Body Medicine*, 27, 22-25.

O'Haire, M., Guerin, N., & Kirkman, A.C. (2015). Animal-assisted intervention for trauma: A systematic literature review. *Psychology for Clinical Settings*, 6.

Spirituality Literature Review: Spirituality as an Intervention for Transition Aged Youth

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LITERATURE REVIEW 2 Spirituality as an Intervention for Transition Aged Youth

Transition Aged Youth Transition aged youth (TAY) are defined as youth who are between the ages of sixteen to twenty-four (Youth.gov). During this unique phase of life, there are various roles and responsibilities that TAY will have to step into for the first time. Rates of anxiety and depression are on the rise in this cohort as TAY put forth the effort to manage an education/career, financial responsibilities, social connections, physical health, and overall mental/emotional wellbeing in a society that does not function favorably for balancing all these roles. Presentation of Hopelessness has been defined as having no hope, feeling as if hope has been destroyed, and/or facing a problem that seems as if it does not have a solution in sight (Pan & Chiou, 2004). While it is evident that TAY have struggled tremendously for the past several years to meet the expectations that have been set before them according to society's standards, the COVID-19 pandemic took a significant toll on the mental health of TAY. The negative mental health effects caused by the pandemic are unlike any that have been experienced before by this generation. Survey results from a national sample of high schoolers revealed that 37% of students stated that their mental health status was "poor" during the pandemic, 44% of students claimed that they felt persistently sad and hopeless, and almost 20% of students experienced suicidal ideation during this time of uncertainty (Jones et al., 2022). As society begins to discover a new sense of normal, TAY are left struggling with overwhelming demands of life; it is no surprise that

hopelessness is such a common response in young adults. Hopelessness in TAY can be presented in several different ways. Violence is one of the behaviors that have been associated with feelings of hopelessness in youth. Through research, it SPIRITUALITY LITERATURE REVIEW 3 has been understood that one of the predicting factors in deviant youth behavior is feeling as if there is no hope for the future (Demetropoulos Valencia et al., 2020). If there is no hope, there is a lack of motivation toward success and a lack of fear for negative consequences. Another way that hopelessness has been shown to be presented in TAY is through suicidal ideation, attempts, and completion. Oftentimes, those who attempt or complete suicide perceive that behavior as a solution to a hopeless situation. Whenever an individual experiences hopelessness, there is no resolution in sight for whatever dilemma they are facing; suicide is contemplated as a concrete and definite solution (Tonkus et al., 2022). Hope Through Spirituality Instilling hope within TAY is a protective factor against reaching a point of hopelessness. Hope is defined as desiring for an outcome to happen and believing that the realization of it coming to fulfillment is possible, but also being aware that it is not certain to happen (Kwong, 2018). When it comes to having hope, an individual is displaying a testament of faith that resides within the soul; hope is an act of the spirit. Spirituality is personalized and naturally occurring; an individual seeks to be connected to a higher power and/or to be connected to a purpose within their life (Joseph et al., 2017). Spirituality alone is a solid foundation for hope to flourish upon. In adolescents, it has been found that the presence of spirituality creates an association between hope and anxiety; when there is a spiritual desire present, levels of hope increase and levels of anxiety decrease (DiPierro et al., 2017). Resiliency

Through Spirituality While spirituality offers hope for the future, it can also act as a protective factor from trauma that TAY have been exposed to. According to the National Center for PTSD, up to 43% of boys and girls will go through at least one trauma during childhood/teenage years (US SPIRITUALITY LITERATURE REVIEW 4 Department of Veterans Affairs, 2018). How that trauma is coped with will determine how large of a long-term effect it has on the individual's life. Spirituality can be utilized as a coping mechanism for traumatic experiences through the sense of resiliency that it offers. Resiliency is each individual's ability to undergo an adversity and regain satisfactory quality of life following the adversity. Those who display resiliency through spiritual means have the ability to restructure their perspective and attitude in the face of adversity as they seek out their purpose and/or higher power throughout the difficulty (Peres et al., 2006).

Love and Belonging Through Spirituality According to Maslow's Hierarchy of Needs, a sense of love and belonging is an essential need that must be fulfilled for all individuals before they can reach their fullest potential in life. This love and belonging need is a desire for interpersonal relationships and connections with others that are meaningful (McLeod, 2023). During the COVID-19 pandemic, society was isolated like never before, especially children and adolescents who adapted to a virtual learning platform. Psychological distress during this time was positively associated with levels of social isolation; the more social isolation that was required via guidelines, the more psychological distress that was experienced by youth. This association ultimately led to more worries and anxieties that were experienced by adolescents regarding the pandemic (Rauschenberg et al., 2021). Love and belonging needs were inevitably not being fulfilled during the pandemic as

social interactions were restricted. Society is currently still struggling to resurface and sustain meaningful interactions after such a large foundation of communication was lost. When it comes to spiritual interactions, there is a quickly growing population that is becoming involved with religious organizations simply for the sense of security that is found within belonging to a unified group (Pospisil & Machackova, 2021). It is even recommended for healthy aging that SPIRITUALITY LITERATURE REVIEW 5 individuals have a spiritual connection to a higher power and/or religious community as a means of social support that is stable and consistent (Malone & Dadswell, 2018).

Spirituality Interventions There are various spirituality interventions that have been proven to be effective in increasing levels of hope, acting as protective factors against trauma through means of resiliency, and meeting love and belonging needs. TAY can utilize these spirituality interventions to assist them in decreasing overall levels of psychological distress, primarily those symptoms related to anxiety, such as worry and fear. Both praying, individually and in a group setting, and attending worship services are supported spirituality interventions that have been proven through research to reduce psychological distress (Bartkowski et al., 2017). Another way to alleviate psychological distress through spirituality interventions is by creating a connection with nature. Nature is a reflection of things that are spiritual; through immersing in nature, an individual is able to find belonging, purpose, and self-discovery (Naor & Mayseless, 2019). Spirituality interventions are healthy and wholesome implementations that can be made in the lives of TAY in an effort to increase hope, resiliency, and belonging in a society that presents them with struggles in each of those domains.