

The Relationship of Self-Esteem and Religion to Perceived Health in Disabled
Adolescents

By

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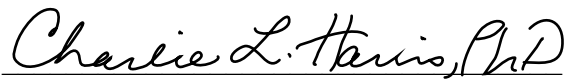
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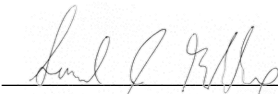
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Abstract

Though studies have shown positive impacts of self-esteem and religion for disabled individuals, research surrounding disability is varied in conceptualization and definition of disability. This study examines the relationship between self-esteem, religion, and perceived health in disabled adolescents using a salutogenic framework. Participants were 102 physically disabled adolescents from the National Longitudinal Study of Adolescent to Adult Health (Add Health Study). The archival data from the Add Health Study was used to explore the relationship between self-esteem (generalized resistance resource [GRR]), religion (GRR), and religious action (specific resistance resource [SRR]) with perceived health in disabled adolescents. Self-esteem was significantly correlated with perceived health and religious action. Religiosity was significantly correlated with religious action. There were no significant correlations between perceived health, religiosity, and religious action. Religious action did not mediate the relationship between perceived health and religiosity. Religiosity did not moderate the relationship between perceived health and self-esteem. This study lays the groundwork for future research surrounding disability utilizing a salutogenic framework, though future studies should expand the disability types included. Future studies should also expand the racial and religious makeup of the sample. This study also expands the current body of research by showing a similar pattern of relation between self-esteem and perceived health, self-esteem and religious action, and religion and religious action in disabled adolescents as is found in their able-bodied counterparts. A wide range of implications for clinical practice

exist from understanding how religious involvement may impact disabled adolescent clients' self-esteem and perceived health to exploring the utilization of a salutogenic framework when conceptualizing clients' coping and well-being.

Keywords: disability, adolescents, salutogenesis, generalized resistance resource (GRR), specific resistance resources (SRR), self-esteem, religion, perceived health

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Introduction

An estimated 16% of the world's population is disabled (World Health Organization, 2023). This means that approximately 1.3 billion people are at risk of experiencing the ableism, stigma, inequalities in healthcare, poor health, and early mortality faced by disabled people in our world today (World Health Organization, 2023). In addition to increases in poor physical health, disabled people report increased mental distress as well as mental health diagnoses (Turner et al., 2006; Cree et al., 2020). Amongst disabled individuals, mental distress is reported at a rate 4.6 times higher than those without disability, and this mental distress is associated with increased negative health behaviors and mental health diagnoses (Cree et al., 2020). Turner et al. (2006) found a lifetime rate of diagnosis of a psychiatric or substance use disorder for physically disabled people nearly double that of non-physically disabled people with 37% of physically disabled participants reporting a lifetime diagnosis of a psychiatric or substance use disorder compared to 22.3% of non-physically disabled participants.

Turner et al.'s (2006) study highlighted one issue in studies of disability: the wide range of disability categorization, which can vary depending on the study. Hodge and Reynolds (2018) categorized the disabilities in their study as physical mobility, vision, hearing, emotional, and mental, while Okoro et al. (2018) classified the disabilities in their study as hearing, vision, cognition, mobility, self-care, and independent living. This lack of cohesion in disability categorization within research extends to the construct of disability itself. There is a lack of uniformity in the definition and conceptualization of

disability (Altman, 2001). Programmatic, public health, clinical, scholarly research, etc. definitions of disability differ to such a degree that an individual may be considered disabled in one context but not be considered disabled in another (Altman, 2001). Though disease specific measures of disability as well as survey measures of disability do exist, these measures cannot be used to define disability itself (Altman, 2001; Sabariego et al., 2021; Mohaghegh et al., 2022). This lack of global definition of disability is likely due to the complex, multidimensional nature of disability and lead some researchers to state that disability is an undefinable identity, which leads to challenges in developing theories of disability (Altman, 2001).

Literature Review

Theories of Disability

In addition to the varying nature of definitions of disability, models attempting to conceptualize disability are mixed as well. The oldest model of disability is the moral model of disability, which holds that disability is the result of sin or is either a test or failure of faith on the part of the disabled person (Olkin, 2002). Using this model, treatment for disability works toward the goal of spiritual or divine acceptance (Olkin, 2002). Though many negatives of this model do exist (i.e. shame, desire to hide disability, etc.), this model can provide disabled individuals with the belief that they have a higher, divine purpose or a unique relationship with divine (Olkin, 2002). The implications for self-concept and resilience within this model are vast. Smith and Crosby (2017) found that for children, their view of God as loving and empathetic is directly related to self-esteem. If this relationship holds true for adults, it stands to reason that if one views their disability as being chosen by the divine then pride, joy, and meaning could follow which would increase resilience and self-esteem. However, if one views their disability as an affliction from the divine due to a test or moral failure, it could lead to guilt, shame, lack of purpose, etc., which could lower resilience and self-esteem significantly.

Following a similar pathogenic conceptualization as the moral model of disability is the medical model of disability (Olkin, 2002). This model explains disability as a physical or mental defect found within the disabled individual which limits functioning

(Altman, 2001; Williams, 2001; Olkin, 2002). Formulated surrounding the idea that the existence experienced by a disabled person is largely negative, this theory implies that disability requires correction or a cure for disabled people to experience a “normal,” positive life (Olkin, 2002; Darling & Heckert, 2010). It emerged in the mid-19th century and is most commonly utilized in the United States, specifically in rehabilitation clinics, medical settings, and has also emerged in scholarly literature (Williams, 2001; Olkin, 2002). This model encourages advances in medicine and technology through its search to cure disability and gives disabled individuals hope for improvement through medical interventions (Williams, 2001; Olkin, 2002). Though this model is associated with less shame and social stigma than the moral model of disability, it does result in paternalistic treatment of disabled people and often excludes disabled people from having a voice in their movement toward a “cure” for their disability (Williams, 2001; Olkin, 2002). Hope in medical interventions for improvement or cure of their disability could lead to increases in resilience for disabled individuals who follow this model as they constantly push toward medical innovations to aid in their living a more “normal” life. For many disabled individuals this push toward a cure could lead to being treated as a burden to be “normalized” rather than a human. This could possibly lead to infantilization, anger, and grief which might cause lower resilience and a more negative self-concept as they navigate life as a disabled person.

The moral and medical models stand in stark contrast to the social model of disability, which views disability as an issue of accessibility and stigma in society and not a defect found within the disabled person (Altman, 2001; Williams, 2001; Olkin, 2002; Darling & Heckert, 2010). Developed in 1975 during the rise of disability rights activism,

this model holds that the answer to the issues facing disabled individuals is not a closer relationship with the divine or a cure, but instead altering the systems that exclude and stigmatize disabled people to make the world more accessible and inclusive (Williams, 2001; Olkin, 2002). The social model of disability holds that disability can be a positive aspect of one's identity, thus removing the pathology surrounding disability found in the moral and medical models of disability and encouraging a sense of community and pride (Olkin, 2002). This view greatly contrasts the medical model's emphasis on a cure which can drive people away from a positive disability identity in personal and social settings (Olkin, 2002).

Though a positive disability identity (also denoted as affirmation disability identity) is not held by all disabled individuals, it has been shown to be of particular importance to disabled individuals (Han & Belt, 2004). An affirmation disability identity allows for group identity, which helps combat stigma faced by disabled individuals (Hahn & Belt, 2004; Dunn & Burcaw, 2013; Nario-Redmond et al., 2013). Hahn and Belt (2004) also noted that an affirmation disability identity is associated with a lack of desire for a cure for one's disability, which stands in opposition to the medical model's goal of curing disability (Darling & Heckert, 2010; Nario-Redmond et al., 2013). Beyond merely a lack of desire for a cure, Putnam (2005) suggested that pride in one's identity as a disabled person is a major domain of disability identity. Additionally, Putnam (2005) named self-worth as a domain of disability identity as well. This emphasis on positive self-perception found in disability identity aligns with findings that a positive disability identity is associated with self-esteem in disabled individuals (Nario-Redmond et al., 2013; Jung et al., 2022).

Application of the social model is where the challenge and possible harm to disabled people lies (Olkin, 2002). In answer to disability, the social model holds that vast systemic changes are needed to create an accessible and inclusive environment (Olkin, 2002). In working to apply these changes in a largely inaccessible world, disabled people can begin to feel powerless as they work against an often-times indifferent public to make expansive changes to environments that are inherently inaccessible and exclusionary (Olkin, 2002). The application of this model also challenges the long-held conceptualizations of disability, especially the medical model which pervades the medical systems in the United States (Olkin, 2002). Due to the paternalist nature of previous conceptualizations of disability, any attempts by disabled individuals to reframe the core of disability as being a societal issue as opposed to a defect in the moral or biological makeup of the disabled person might be met with disdain and significant resistance. The powerlessness when attempting to improve environments combined with the possible disdain and resistance in working to change societal conceptualization of disability can lead to feelings of isolation, hopelessness, and worthlessness which could cause lower self-worth in disabled individuals.

In exploring the models of disability, it is evident there is no singular conceptualization which perfectly captures disability without also resulting in possible negative outcomes (Atlman, 2001; Williams, 2001; Olkin, 2002). One cannot hold the moral model without risking possibly feeling the shame, guilt, and fear of believing one's disability is a punishment or a sign of lack of faith (Olkin, 2002). Likewise, when one holds the medical model the risk of paternalism and infantilization exists as one interacts with medical personnel in one's endeavor for a more "normal" life (Olkin, 2002). As one

works to apply the social model, feelings of powerlessness and harmful interactions with medical professionals may follow due to the defiance of the wide-held view of disability as something that is pitiful and needs to be cured (Olkin, 2002). Furthermore, though some hold to the tenets of a singular model, others may hold no single theory puristically, and instead integrate the ideas of multiple theories (Olkin, 2002). Olkin encourages clinicians who use integrated models of disability to work with clients to "maximize the benefits and minimize the detriments" of conceptualizing and treating clients within these frameworks may have (p.5). The health science theory of salutogenesis may serve as a viable integrative framework which amplifies the positives and minimizes the negatives associated with previous and extant models of disability.

Salutogenesis: A Wholistic Model of Health for Disabled Persons

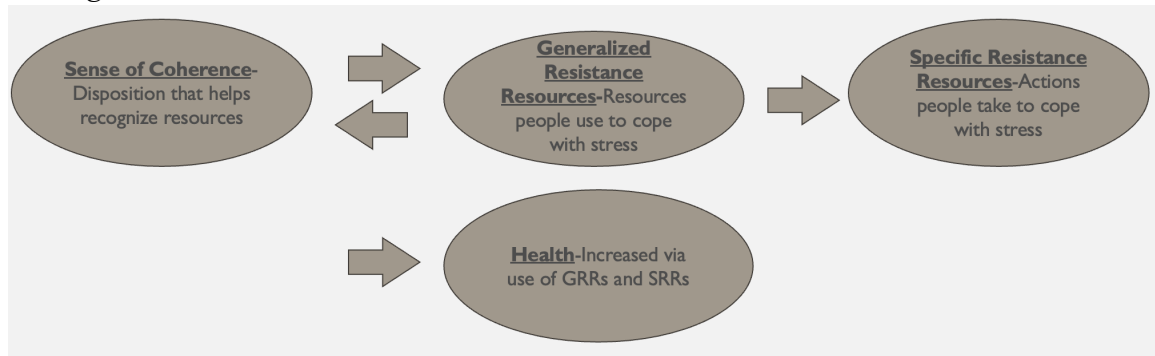
Using Olkin's (2002) encouragement to clinicians, it stands to reason that the same goal should be used when deciding upon a theory to utilize when conducting research with disabled individuals; the theory should "maximize the benefits and minimize the detriments" (p. 5). Developed by medical sociologist Aron Antonovsky, the salutogenic theory is a health science theory which works to explore factors contributing to health rather than risk factors for disease (Antonovsky, 1996; Moksnes & Lazarewicz, 2016; Eriksson, 2022). This theory conceptualizes health more wholistically than pathogenic models which categorize people as diseased or well. Instead, salutogenesis examines health as a continuum of health ease/dis-ease and works to explore what helps people who sit at the health dis-ease end of the continuum toward the "health ease" end (Antonovsky, 1996; Eriksson, 2022).

Antonovsky (1996) likened the salutogenic orientation of health to that of a river. No singular person sits on the riverbank of “wellness” while others sit in the river of “sickness.” All individuals exist in the river together, some are just further downstream than others. Movement upstream is not only necessitated by medical intervention, but by conceptualizing the individual as a whole person and exploring what factors pushed them so far downstream in the first place as well as what factors would help them move back upstream. Instead of risk factors, which Antonovsky (1996) notes only answers the question of what might cause the individual to move further down the health continuum, Antonovsky postulated that we must answer the question “What helps people move back *up* the health continuum?” In his answer to this question, Antonovsky submits three main factors that aid in this movement: sense of coherence, generalized resistance resources, and specific resistance resource. Antonovsky holds that the sense of coherence facilitates the use of generalized resistance resources (and vice versa), which in turn enable the use of specific resistance resources which work to increase health (See Figure 1) (Antonovsky, 1996; Eriksson, 2022).

This model’s goal of movement toward health aligns with the medical model’s focus on improvement of quality of life while avoiding the paternalism of searching for a cure (Williams, 2001; Olkin, 2002). Salutogenesis emphasizes resources, including religious and spiritual resources, which help people move toward health. Such an emphasis is inclusive of the moral model’s positive benefits of relationship with the divine. Salutogenesis’ focus on how one utilizes existing factors to move toward health also works to mitigate the challenges of application of the social model of disability while

simultaneously embracing the social model's positive benefits of disability identity, community, and pride (Antonovsky, 1996; Eriksson, 2022; Olkin, 2002).

Figure 1
Salutogenic Movement Toward Health



Note: The figure demonstrates how salutogenesis conceptualizes movement along the health continuum with the reciprocal relationship between sense of coherence (SOC) and generalized resistance resources (GRRs) and GRRs facilitating the use of specific resistance resources (SRRs) which in turn increases health.

Sense of Coherence

Salutogenesis views the sense of coherence (SOC) as a disposition guiding how one reacts to stress (Moksnes & Lazarewicz, 2016). Specifically, it is a disposition that aids one in recognizing and utilizing resources to cope with stress, not a strategy to combat stress (Eriksson, 2022). In fact, Eriksson (2022) states, “a strong SOC can be described as a deeper understanding of how and why resources work, which allows for more flexible use of resources” (p. 66). The SOC, which is conceptualized on a continuum, contains three domains which help people identify and employ the resources around them to cope with stress: meaningfulness, comprehensibility, and manageableness (Antonovsky, 1996; Moksnes & Lazarewicz, 2016; Eriksson, 2022). A sense of meaningfulness gives the individual a desire to cope with the stress they are facing, a sense of comprehensibility gives the individual a feeling that the stress being faced is understandable, and a sense of manageableness gives the individual confidence that they have the resources needed to cope with the stress they are facing (Antonovsky, 1996). For

example, if an adolescent is facing a test in a subject in which they struggle, a strong sense of coherence will mean they have the desire to do well on the test (meaningfulness), will be able to recognize their stress and accurately identify its source (comprehensibility), and will be able to devise a study plan and reach out to tutors or adult support as they prepare (manageableness).

In addition to understanding the positive impacts of a strong SOC, research utilizing salutogenic theory also seeks to dive deeper into the theory and explore the factors that work to strengthen the SOC (Moksnes & Lazarewicz, 2016; Świtaj et al., 2017; Dell’Olio et al., 2018). In salutogenesis the factors that help build up the SOC are quite varied and individualized (Dell’Olio et al., 2018; Eriksson, 2022; Idan et al., 2022). Within the theory, these various factors are broken down into two broad categories: generalized resistance resources and specific resistance resources (Eriksson, 2022).

Generalizes Resistance Resources

Salutogenesis defines generalized resistance resources (GRRs) as “the resources of a person, a group, or a community that facilitate the individual’s abilities to cope effectively with stressors and contribute to the development of the individual’s level of SOC.” (Idan et al., 2022, p. 93). More simply, a GRR is a characteristic of an individual, group, subculture, or society that aids in coping with or avoiding stress (Eriksson, 2022). According to Antonovsky, GRRs fall into twelve categories:

- (1) material resources (e.g., money), (2) knowledge and intelligence (e.g., knowing the real world and acquiring skills), (3) ego identity (e.g., integrated but flexible self), (4) coping strategies, (5) social support, (6) commitment and cohesion with one’s cultural roots, (7) cultural stability, (8) ritualistic activities, (9) religion and

philosophy (e.g., stable set of answers to life's perplexities), (10) preventive health orientation, (11) genetic and constitutional GRRs, and (12) individuals' state of mind. (Idan et al., 2022, p. 93)

As is evident from the categories of GRRs, a GRR can be an internal characteristic of a person as well as an external resource which a person can utilize (Dell'Olio et al., 2018; Idan et al., 2022). Examples of GRRs include self-esteem, religion, social support, money, family support, culture, etc. GRRs are believed to be the foundation for developing a strong SOC, but little research has been conducted on this topic (Eriksson, 2022). In addition to the belief that GRRs lay the foundation for a strong SOC, there is also believed to be a reciprocal relationship between GRRs and the SOC where GRRs increase the strength of the SOC and the strengthening of the SOC helps individuals identify and utilize increasing numbers of GRRs (Idan et al., 2022).

For adolescents specifically, GRRs have been found to be important contributors to SOC. The GRR of social support (peer, teacher, and aspects of neighborhood social support) are contributors to SOC in adolescents (Idan et al., 2022). An example of this GRR would be having supportive friends whereas utilizing one's relationships with friends when faced with stress would fall under the category of specific resistance resource (SRR), which will be discussed in a later section. Adolescent SOC is also influenced by the GRR of family factors, particularly the quality of parental relationships with adolescents (Idan et al., 2022). An example of family factors that would be considered a GRR would be the ease of communication between parents and the adolescent while specific conversations would fall into the category of SRR. Self-esteem is a GRR shown to influence SOC, with self-esteem being shown to have a significant

relationship with SOC in adolescence leading to outcomes ranging from increased social interaction to better physical and mental health (Trzesniewski et al., 2006; Kavvas, 2009; Christie-Mizell et al., 2010; Hayter & Dorstyn, 2014; Orth et al., 2014; Braun-Lewensohn et al., 2022; Idan et al., 2022; Kim, 2022; Mittelmark & Bauer, 2022).

Research surrounding GRRs and disability is lacking (Lustig et al., 2000; Jacobsson et al., 2011; Moen et al., 2019). However, Dell'Olio et al.'s (2018) qualitative study discussed some overarching themes of the GRRs for disabled university students. Social support, advice, supportive environments, and people's understanding of their disability were found to be the main external GRRs for study participants and were found to have reciprocal relationships (Dell'Olio et al., 2018). Specifically, it was noted that social support and supportive environments interacted with the social support of friends resulting in a more supportive environment as friends worked to make their environments more accessible and their disability more manageable (Dell'Olio et al., 2018). Money, which allows for increased access to more specific resources, was also noted as a GRR among some of the participants (Dell'Olio et al., 2018). Internal GRRs for the study participants included persistence, awareness of their own skills, limits, and resources, and flexibility (Dell'Olio et al., 2018). Dell'Olio et al. (2018) noted that the GRR of persistence was, in some cases, born out of what might be perceived as a stressor: people's questioning of their capacities. An excerpt sheds light on this, the participant noting that her teacher insisting her dream is impossible is what strengthened her own determination to make her dream a reality (Dell'Olio et al., 2018).

Dell'Olio et al.'s (2018) study exemplified the individualized and varied nature of generalized resistance resources. Despite the diverse nature of GRRs, studies do explore

the impact of unique GRRs on the SOC (Moksnes & Lazarewicz, 2016; Świtaj et al., 2017). One such GRR explored by researchers that has important implications for well-being is self-esteem.

Self-Esteem as a GRR.

Self-esteem, a facet of one's self-concept that impacts how one understands and values oneself, has been shown to impact numerous areas of life. High self-esteem has been related to improved physical health, mental health, and increases in health-related behaviors (Kavas, 2009; Christie-Mizell et al., 2010; Hayter & Dorstyn, 2014; Orth et al., 2014). Kim (2022) showed self-esteem to be related to increased social participation. Conversely, low self-esteem in adolescence has been shown to be associated with increased risk for depression, poor mental and physical health later in life as well as an increased likelihood of adulthood criminal conviction (Trzesniewski et al., 2006; Orth et al., 2014). Magnusson and Nermo (2018) found that for young adult women, both global and domain-specific self-esteem in childhood is related to later occupational prestige.

Due to the impacts of childhood and adolescent self-esteem on later outcomes, it is clear that exploring the development of self-esteem over the life course is crucial. Errol and Orth (2011) conducted one such study, which tracked the self-esteem trajectories of participants from ages 14 to 30. Findings showed no gender differences in self-esteem trajectories, though trajectory differences were noted amongst races. Personality characteristics such as extroversion, emotional stability, and conscientiousness were associated with higher self-esteem at every age. A sense of mastery has also been found to moderate the trajectory of self-esteem. Despite these overall moderators of self-esteem throughout development, overall self-esteem has been found to increase during

adolescence and continue to increase into young adulthood, though growth slows during this phase of development. Orth and Robins (2014) findings further supported the assertion of increasing self-esteem through adolescence. The increasing self-esteem of adolescents is especially important as Kavas (2009) found that higher self-esteem is related to lower alcohol and drug use in Turkish adolescents.

Self-esteem is also an important variable of interest for disabled individuals. Self-esteem has been found to play a role in resilience for individuals with spina bifida (Hayter & Dorstyn, 2014). However, Hayter and Dorstyn (2014) also found the relationship between self-esteem and resilience is negatively impacted by psychological distress. Kim (2022) found that self-esteem contributed to the social participation of physically disabled individuals. Self-esteem has also been found to mediate stigma and quality of life of individuals with mental illness (Świtaj et al., 2017).

Salutogenesis categorizes self-esteem and all its positive impacts as a GRR (Moksnes & Lazarewicz, 2016; Świtaj et al., 2017; Eriksson, 2022). The impact of stigma on the quality of life of individuals with mental illness has been found to be mediated by self-esteem (Oliveira et al., 2016; Świtaj et al., 2017). Świtaj et al. (2017) additionally found that self-esteem and SOC work in tandem for the mediating effect on stigma's impact on quality of life in individuals with mental illness. In adolescents specifically, self-esteem has been found to have a strong, positive relationship with the SOC even after controlling for sex, age, stress, and physical health (Moksnes & Lazarewicz, 2016).

Beyond its positive impacts on health outcomes and future success, self-esteem's relationship with other aspects and contexts of development have been explored. As a major developmental context, the interaction of self-esteem and religion is one area of

interest. Given religion has been associated with positive outcomes ranging from better coping to lower mortality and is important to 82% of Americans, religion is of particular interest as a GRR (McCullough et al., 2000; Wormald, 2008a; Abu-Raiya & Pargament, 2015). Though not studied extensively as a GRR, religion is considered a GRR which not only has an impact on the SOC but also interacts with other GRRs such as self-esteem (Anyfantakis et al., 2015; Dell’Olio et al., 2018; Mittelmark & Bauer, 2022).

Religion as a GRR.

Religion has been associated with many positive health outcomes ranging from lower mortality rates to fewer depressive symptoms and better coping with stress (McCullough et al., 2000; Smith et al., 2003; Abu-Raiya & Pargament, 2015; Cheadle & Schetter, 2017; Veselska et al., 2018). Anyfantakis et al. (2015) specifically associated increased religious involvement with a decreased likelihood of scoring high on the Beck Depression Inventory Scale. Additionally, religion has also been found to have a relationship with self-esteem (Ghorbani et al., 2016; Smith & Crosby, 2017; Gábová et al., 2021).

Amongst these studies on religion’s relationship with self-esteem, there is inconsistency found in the operationalization of religion. Religion in some studies was viewed as a singular construct, while in others a distinction was made between religion and spirituality in discussion but not operationalization, while in others still religion and spirituality were measured as distinct constructs (Smith & Crosby, 2017; Gábová et al., 2021). Furthermore, studies regarding religion often lack diversity amongst the specific religions being examined (Abu-Raiya & Pargament, 2015; Smith & Crosby, 2017). For

this reason, making generalized statements regarding the findings of studies surrounding religion and self-esteem is difficult.

Abu-Raiya and Pargament's (2015) review of current research regarding religious coping amongst non-Christian religions revealed both commonalities and divergences in religious coping amongst Muslim, Jewish, Buddhist, and Hindu individuals. They define religious coping as "a specific mode of coping that is inherently derived from religious beliefs, practices, experiences, emotions, or relationships" (Abu-Raiya & Pargament, 2015, p. 25). Overall, across all the religions included in the study people utilized various aspects of their religion to cope with life stress (Abu-Raiya & Pargament, 2015). Though the mechanisms of coping varied amongst religions (e.g. reading the Qura'n for Muslims, consulting with a Rabbi for Jews, etc.), all religions had both positive and negative forms of coping that were associated with positive and negative outcomes (Abu-Raiya & Pargament, 2015). Across all the religions studied, positive religious coping, which has been associated with positive outcomes, was reported more than negative religious coping (Abu-Raiya & Pargament, 2015). Abu-Raiya and Pargament's (2015) study established that across religions a designation of positive religious coping and negative religious coping can be utilized, a finding which is important for studies of any religion's relationship with self-esteem moving forward.

Ten Kate et al. (2017) explored which aspects of religious involvement were associated with the increased life-satisfaction reported by religious individuals across religions. Amongst the religions studied (Catholic, Protestant, Islam, Other), it was found that a sense of belonging was especially important to reported life satisfaction (ten Kate et al., 2017). It was further suggested that feelings of community and solidarity fostered

by the sense of belonging provided by a religious community is a possible contributor to the life satisfaction reported by religious individuals (ten Kate et al., 2017).

Gábová et al. (2021), though not specific in religions included in their study, were purposeful in their study to differentiate religion versus spirituality and to find each construct's distinct relationship with self-esteem. Findings showed that those who are both religious and spiritual have equitable self-esteem with those who are non-religious (Gábová et al., 2021). However, those who are religious but not spiritual were found to have an increased chance of having lower self-esteem (79%) compared to those who are non-religious (Gábová et al., 2021). Spirituality without religiosity was found to be associated with higher self-esteem (Gábová et al., 2021). Specific aspects of religion were found to be associated with higher self-esteem, namely frequency of prayer and the "God image" (Gábová et al., 2021).

Smith and Crosby's (2017) study on self-esteem and religion only included protestant evangelical participants and did not differentiate between spirituality and religion. Though not generalizable beyond protestant evangelical children and adolescents, results of this study showed a relationship between many aspects of religious involvement and self-esteem (Smith & Crosby, 2017). Church peer support and one's view of God (i.e. a loving empathetic view of God) were found to have a direct relationship to self-esteem in children and adolescents (Smith & Crosby, 2017). Though adult church support and family religious practices were not found to directly impact self-esteem, these variables were found to indirectly impact self-esteem through their role of shaping the child or adolescent's view of God (Smith & Crosby, 2017). These specific variables were found to have varying impacts based upon age. For children, family

religious practices were more salient to their view of God while for adolescents their relationships with adults in church were more impactful to their view of God (Smith & Crosby, 2017). These results exemplify the importance of family religious practices as well as positive non-familial relationships with adults in church as important, though indirect, influencers of self-esteem for evangelical, protestant youth.

Ghorbani et al. (2016) explored the possible relationship between religious coping style and mental health outcomes with Muslim participants in Iran. Positive religious coping was found to be associated with self-regulation overall, specifically finding a direct link between positive religious coping with self-knowledge, self-control, and mindfulness (Ghorbani et al., 2016). Additionally, a partial correlation found a positive relationship between positive religious coping and self-esteem (Ghorbani et al., 2016).

Though Smith and Crosby (2017) and Ghorbani et al.'s (2016) studies are not comparable due to the variance in religion and variables studied, these studies do show a link within specific religious contexts and self-esteem as well as other positive outcomes. Furthermore, Smith and Crosby's (2017) specific findings of the relationship between how one views God and self-esteem were replicated by Gábová et al. (2021). A gap in the literature exists regarding studies examining multiple religions and their relationship to self-esteem. Studies such as Abu-Raiya and Pargament (2015) and ten Kate et al. (2017), which include multiple religions, provide important data regarding the positive outcomes beyond self-esteem associated with religious involvement.

Given the increased life satisfaction, positive coping, and self-esteem associated with religious involvement, religion as a generalized resistance resource is clear. In religion, one finds a sense of belonging and community which allows individuals to feel

as if they have the ability and resources to cope with life's stresses (Abu-Raiya & Pargament, 2015; ten Kate, et al. 2017). Though much research has been conducted regarding these aspects of religion, one area where research is sorely lacking is the convergence of religion and disability.

Of the studies surrounding religion and disability, many focus on how disabled individuals' experience of and expression of religion differ from that of their able-bodied counterparts. Across all disability types, compared to the able-bodied general population, an increased likelihood was found of having a "turning point" during which their commitment to religion decreases (Hodge & Reynolds, 2018). An increased likelihood of praying multiple times a day was found amongst those with physical, emotional, and hearing disabilities (Hodge & Reynolds, 2018). There was also variance in the perception and definition of spirituality amongst disabled people depending upon whether the disability occurred during childhood or adulthood (Schulz, 2005).

Despite the research surrounding positive associations of disability and religion, Ojok and Musenze (2019) suggested a mechanism for a negative impact of religion on disabled people. In their qualitative analysis, the possibility that the language used in the texts of Christianity, Judaism, and Islam as well the overall stories of disabled people in the holy texts of these religions may lead to negative views of disability. Additionally, though positive religious coping is most prevalent, negative religious coping can occur and is associated with negative outcomes such as lower self-esteem, mindfulness, and self-control and increases in depression, shame, anxiety, and poor health (Abu-Raiya & Pargament, 2015; Ghorbani et al., 2016).

These mixed results regarding religion and its interaction with disability suggest that how one experiences religion and utilizes specific religious resources can influence stress management, self-esteem, etc. in disabled individuals' lives. Abu-Raiya and Pargament (2015) particularly explored this individualized coping in their study, noting unique coping strategies amongst religions. In salutogenesis, this utilization of the specific aspects of one's religion to cope is considered a specific resistance resource.

Specific Resistance Resources

A specific resistance resource (SRR) is a resource utilized that is specific to the situation and the stressor (Mittelmark et al., 2022). Dell'Olio et al. (2018) also showed through their qualitative study that SRRs are specific to the individual, so what might be a SRR for one individual is not a SRR for another. Furthermore, what is an SRR for one person might be a GRR of another person and vice versa (Mittelmark et al., 2022). SRRs are more easily accessible to individuals with greater numbers of GRRs (Mittelmark et al., 2022). For example, an individual with the GRR of a high level of income would have access to more SRRs (Mittelmark et al., 2022). Salutogenesis holds that "(t)he relationship between GRRs and SRRs is that via the sense of coherence, GRRs enable one to recognize, pick up, and use SRRs in ways that keep tension from turning into debilitating stress, assuming useful SRRs are available." (Mittelmark et al., 2022, p. 110). Despite this distinction between GRRs and SRRs within salutogenesis, research often fails to differentiate between the two (Mittelmark et al., 2022). Dell'Olio et al.'s study (2018) with disabled university students is an exception such that they were able to document that SRRs were quite diverse and specific amongst the participants, and they

were able to group SRRs into three overarching categories of disease information, aids and treatments, and institutional services.

Within the category of disease information, diagnosis was often named as a specific resistance resource with participants noting that finally knowing what was going on with their health brought positive emotions (Dell'Olio et al., 2018). The level of visibility of participant's disease was also noted as a specific resistance resource for some, with one participant sharing in an excerpt that using mobility aids brought about more social support to help her cope with stressors (Dell'Olio et al., 2018). Mobility aids themselves were also seen as a specific resistance resource, falling under the category of "aids and treatments" in Dell'Olio et al.'s (2018) study. In addition to mobility aids, medication also was included in this category, though it was noted that for some medication may improve health and be an SRR, but for others medication can cause side effects or make symptom worse and would not be an SRR (Dell'Olio et al., 2018). In terms of institutional services, the most noted SRRs were exam adjustments and thesis adjustments (Dell'Olio et al., 2018).

Though it does not specifically identify GRRs and SRRs, Abu-Raiya and Pargament's (2015) study on religious coping showed how the GRR of religion promotes the use of the SRR of religious coping. Their definition of religious coping as "a specific mode of coping that is inherently derived from religious beliefs, practices, experiences, emotions, or relationships" best exemplifies the utilization of the SRR of religious coping due to the GRR of religion (Abu-Raiya & Pargament, 2015, p. 25). An example is seen when the acts of religious coping were discussed with specifics regarding how individuals within each religion cope uniquely, such as consulting with their Rabbis,

reading the Qura'n, searching for spiritual awakening, or turning toward mindfulness and correct understanding (Abu-Raiya & Pargament, 2015). Each of these specific methods of coping found amongst the various religions is an SRR born out of the GRR of religion.

Hypotheses

Current research surrounding GRRs' and SRRs' impact on disabled people is sorely lacking. Given the positive impacts of GRRs such as self-esteem and religion and SRRs such as religious action for non-disabled individuals in the literature reviewed, the study of these resistance resources with disabled populations is necessitated. For this study, the hypotheses will be:

1. The GRRs (self-esteem and religiosity), the SRRs (frequency of prayer, frequency of religious service attendance, and frequency of adolescent-specific religious service attendance), and perceived health will all be positively correlated.
2. Religion as a SRR will mediate the relationship between religiosity as a GRR and perceived health.
3. Religiosity as a GRR will moderate the relationship between self-esteem and perceived health.

Method

The National Longitudinal Study of Adolescent to Adult Health (Add Health) Data

This research used data from Add Health, funded by grant P01 HD31921 (Harris) from the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), with cooperative funding from 23 other federal agencies and foundations. Add Health is currently directed by Robert A. Hummer and funded by the National Institute on Aging cooperative agreements U01 AG071448 (Hummer) and U01AG071450 (Aiello and Hummer) at the University of North Carolina at Chapel Hill. Add Health was designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill.

The purpose of this study was to explore the relationship between self-esteem, religion, and perceived health in disabled adolescents using a salutogenic framework in addition to the possible moderating relationship between religion as an SRR, religiosity as a GRR, and perceived health as well as a possible mediating relationship between religiosity as a GRR, self-esteem and perceived health. This study utilized archival data from the National Longitudinal Study of Adolescent to Adult Health (Add Health Study).

Begun in the year 1994, the Add Health Study is a longitudinal study exploring adolescent health and behaviors related to health. It was conducted in the United States with a nationally representative sample of adolescents in grades 7-12. The Add Health data goes beyond reports on health and health behaviors, administering longitudinal surveys covering a wide range of contextual data from social, family, community, and

school contexts to economic status, mental health status, employment status as well as numerous additional variables. Since Wave I was completed in 1995, there have been four follow-up waves with Wave V being completed in 2018. The archival nature of the Add Health Study data eliminates the possibility of utilizing SOC as the commonly used outcome variable in salutogenic research. However, due the association between SOC and perceived health in adolescents, the outcome variable of perceived health was selected as the outcome variable for this study (Eriksson & Lindström, 2006; Braun-Lewensohn et al., 2022).

In light of the inconsistencies in definition and conceptualization of disability found in the literature, for the purposes of this study, disability was defined and operationalized based upon an affirmative response to the question “Do you have difficulty using your hands, arms, legs, or feet because of a permanent physical condition?” This operationalization was necessitated due to the limited nature of archival data being utilized for this study. Additionally, this operationalization followed the rationale of Hodge and Reynolds (2018) whose study showed variation in religious profiles based on disability type and encouraged future studies to differentiate between disabilities of hearing, vision, physical mobility, and emotional/mental. The sample size in this study for hearing and vision disabilities was too small to be included, and the only questions regarding intellectual disabilities and learning disabilities did not give additional information about the level of cognitive functioning of the participant and were excluded due to the lack of specificity. For these reasons, only the category of physical disabilities was represented in this study.

Participants

Participants in this study were the 102 adolescents who responded “yes” to the question “Do you have difficulty using your hands, arms, legs, or feet because of a permanent physical condition?” in the In-Home Questionnaire of Wave I of the Add Health Study. Any participant who answered affirmatively to this question but also reported a hearing or vision disability or whose parent reported them having a cognitive or learning disability were excluded from the study.

Fifty-nine participants identified as female and 43 participants identified as male. Ages ranged from 13 to 19 ($M=16.31$, $SD=1.71$). When responding about race participants were allowed to choose more than one race to describe themselves. See Table 2 for the full breakdown for the racial composition of the sample. The majority of participants were one of the various denominations of Christianity, with Baptist being the most common. See Table 3 for a full breakdown of the religious composition of the sample of participants.

Respondents reported their residential parents’ education level. For residential mothers out of the 91 respondents, approximately 56% had a high school diploma or GED or lower. For residential fathers of the 59 respondents, approximately 51% had a high school diploma or lower. See Table 4 and Table 5 for full information on residential mother and father education levels. Residential mothers’ work was also reported by the respondent with the largest percentage of the 91 who responded (approximately 21%) reporting working in office work/bookkeeping/clerk/secretary positions (see Table 6). Residential fathers’ work was also reported by the respondents, with the largest percentage of the 60 respondents (15%) reporting either working in construction/carpentry/crane operation or other (see Table 7).

The responding parent reported employment status. Of the 88 responding about employment status, 78% reported being employed either full or part-time while 22% were unemployed (see Table 8).

Table 1
Biological Sex

	Frequency	Percent
Male	43	42.2
Female	59	57.8
Total	102	100.00

Table 2
Race

Race	Frequency	Percent
Hispanic	9	9
White	82	80
African American	12	12
American Indian	14	14
Asian	2	2
Other	4	4
Total	123	121

Note: Percent taken out of the 102 participants. Total percent will be above one hundred because participants could mark multiple races.

Table 3
Religion

Religion	Frequency	Percent
Adventist	1	1
Assemblies of God	1	1
Baptist	27	26.5
Christian Church (Disciples of Christ)	12	11.8
Congregational	1	1
Later Day Saints (Mormon)	1	1
Lutheran	4	3.9
Methodist	2	2
Pentecostal	3	2.9
Presbyterian	1	1
Other Protestant	3	2.9
Baha'i	1	1
Catholic	17	16.7

Islam/Moslem/Muslim	1	1
Jewish- Conservative/Reformed/Orthodox/Reconstructionist	2	2
Other Religion	6	5.9
None	15	14.7
Not Answered	4	3.9
Total	102	100

Table 4
Residential Mother Education

Education Level	Frequency	Percent
8 th grade or less	5	4.9
>8 th grade/didn't graduate high school	9	8.8
Business/trade/voc. school instead of high school	1	1
High school graduate	26	25.5
GED	5	4.9
Business/trade/voc. school after high school	5	4.9
College/didn't graduate	11	10.8
Graduated from college/university	15	14.7
Prof training beyond 4-year college/university	9	8.8
Went to school/resp doesn't know level	3	2.9
Rest doesn't know if she went to school	2	2
No Residential Mother	11	10.8
Total	102	100.00

Table 5
Residential Father Education

Education	Frequency	Percent
8 th grade or less	5	4.9
>8 th grade/didn't graduate high school	6	5.9
Business/trade/ voc. school instead of high school	1	1
High school graduate	18	17.6
Business/trade/voc. school after high school	5	4.9
College/didn't graduate	7	6.9

Graduated from college/university	8	7.8
Prof training beyond 4-year college/univ	8	7.8
Went to school/resp doesn't know level	1	1
No Residential Father	41	40.2
Don't know	2	2
Total	102	100

Table 6*Residential Mother Work*

Work	Frequency	Percent
Professional 1/doctor/lawyer/scientist	2	2
Professional 2/teacher/librarian/nurse	17	16.7
Manager/executive/director	4	3.9
Technical/computer specialist/radiologist	3	2.9
Office worker/bookkeepers/clerk/secretary	19	18.6
Sales worker/insurance agent/store clerk	4	3.9
Restaurant worker/personal service/housekeeper	7	6.9
Craftsperson/toolmaker/woodworker	1	1
Construction worker/carpenter/crane operator	1	1
Mechanic/electrician/plumber/machinist	1	1
Factory worker/laborer/assembler/janitor	10	9.8
Other	13	12.7
None	9	8.8
No Residential Mother	11	10.8
Total	102	100

Table 7*Residential Father Work*

Work	Frequency	Percent
Professional/doctor/lawyer/scientist	2	2
Professional/teacher/librarian/nurse	4	3.9
Manager/executive/director	6	5.9
Technical/computer specialist/radiologist	2	2
Office worker/bookkeepers/clerk/secretary	2	2
Sales worker/insurance agent/store clerk	4	3.9
Craftsperson/toolmaker/woodworker	5	4.9
Construction worker/carpenter/crane	9	8.8

operator		
Mechanic/electrician/plumber/machinist	4	3.9
Factory worker/laborer/assembler/janitor	7	6.9
Transportation/bus or taxi driver	1	1
Military/security/police officer/soldier/ fire fighter	1	1
Other	9	8.8
None	4	3.9
No Residential Father	41	40.2
Don't know	1	1
Total	102	100

Table 8
Responding Parent Employment Status

Employed Full Time	Frequency	Percent
Employed	69	67.6
Unemployed	19	18.6
Missing	14	13.7
Total	102	100

Measures

Measures were gathered from questions in the Add Health Study Wave I In-Home Questionnaire and In-School Questionnaire on the constructs of Disability, Self-esteem (Cronbach's Alpha = 0.86), Religiosity as a GRR, Religion as a SRR, and Perceived Health. See the appendix for a specific description of the particular variables used from the code book for the Add Health Study.

Table 9
Variables

Construct	Questions	Scale of Measure
Disability	Do you have difficulty using your hands, arms, legs, or feet because of a permanent physical condition?	Yes/No/Don't Know/Refuse
Self-Esteem	Do you agree or disagree with the following statement? You have a lot of good qualities	Likert scale of 1 (strongly agree) - 5 (strongly disagree)

	Do you agree or disagree with the following statement? You have a lot to be proud of.	Likert scale of 1 (strongly agree) - 5 (strongly disagree)
	Do you agree or disagree with the following statement? You like yourself just the way you are.	Likert scale of 1 (strongly agree) - 5 (strongly disagree)
	Do you agree or disagree with the following statement? You feel like you are doing everything just about right.	Likert scale of 1 (strongly agree) - 5 (strongly disagree)
	Do you agree or disagree with the following statement? You feel socially accepted.	Likert scale of 1 (strongly agree) - 5 (strongly disagree)
	Do you agree or disagree with the following statement? You feel loved and wanted.	Likert scale of 1 (strongly agree) - 5 (strongly disagree)
Religiosity as a GRR		
	How important is religion to you?	Likert scale of 1 (very important) - 4 (not important at all)
Religion as a SRR		
	How often do you pray?	Likert scale of 1 (at least once a day) - 5 (never)
	In the past 12 months, how often did you attend religious services?	Likert scale of 1 (once a week) - 4 (never)
	Many churches, synagogues, and other places of worship have special activities for teenagers-- such as youth groups, Bible classes, or choir. In the past 12 months, how often did you attend such youth activities?	Likert scale of 1 (once a week) - 4 (never)
Perceived Health	In general, how is your health? Would you say...	Likert scale of 1 (excellent) -6 (refused)

Procedure

IRB approval was received from Clayton State University's IRB board for an exempt study (20240131003). Participants were gathered from Wave I of the Add Health Study. Wave I of the study was completed from 1994-1995 with 90,118 adolescents in grades 7-12. Additionally, a sample of 20,745 participants were selected from the initial sample to complete an in-home interview alongside 17,670 of their parents. Parental

consent was acquired at the beginning of the study for all participants. The form of consent was mixed amongst the schools. Passive consent was used in some schools where consent was assumed unless a signed form was returned to indicate otherwise. However, other schools required active consent where a signed form had to be returned granting the student permission to participate in the study.

Results

Due to the nature of the original Likert scale utilized in the archival data set, all variables were reverse coded. In the current analysis, higher scores indicate higher levels of the variables of interest (i.e. self-esteem, religiosity as a GRR, religion as a SRR, and perceived health). See Table 10 for descriptive statistics regarding all variables of interest.

Table 10
Descriptive Statistics for Variables of Interest

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Self-Esteem Scale (H1PF30)-Good Qualities	102	1.00	5.00	4.18	.67
Self-Esteem Scale Two (H1PF32)-A Lot To Be Proud Of	102	1.00	5.00	4.20	.78
Self-Esteem, Scale Three (H1PF33)-Likes Self As Are	102	1.00	5.00	3.76	1.06
Self-Esteem Scale Four (H1PF34)-Do Everything Just Right	102	1.00	5.00	3.58	.10
Self-Esteem Scale Five (H1PF35)-Feel Socially Accepted	102	1.00	5.00	3.94	.80
Self-Esteem Scale Six (H1PF36)-Feel Loved And Wanted	102	2.00	5.00	4.12	.80
Religiosity as a GRR (H1RE4)	83	2.00	5.00	4.23	.77
Religion as a SRR Variable One (H1RE3)-Past Year Attended Services	83	2.00	5.00	3.64	1.15
Religion as a SRR Variable Two (H1RE6)-How Often Do You Pray	82	1.00	5.00	3.83	1.33
Religion as a SRR Variable	83	2.00	5.00	2.98	1.20

Three (H1RE7)- Past Year Attended Youth Groups					
Perceived Health (H1GH1)	102	1.00	5.00	3.53	.96
Valid N (listwise)	82				

Self-Esteem Scale

Cronbach's Alpha for Self-Esteem Scale

Cronbach's Alpha assessment was utilized to exam the internal reliability of the six-item self-esteem scale. The results show that the scale had sufficient reliability (Cronbach's Alpha = 0.86). Following the confirmation of the reliability of the scale, in order to calculate the self-esteem score, participants' responses to the self-esteem scale were summed up into a single score with higher scores representing higher levels of self-esteem (N=102, $M = 23.67$, $SD = 3.96$).

Religion as a SRR Factor

A confirmatory factor analysis of the three variables representing religion as a SRR (frequency of prayer, frequency of religious service attendance, and frequency of adolescent-specific religious event attendance) was conducted to construct religion as a SRR factor. These three variables accounted for 64% of the variance in the latent variable of religion as a SRR, and a factor score was created based on regressions.

Hypothesis One: Overall Pattern of Relations Among Variables of Interest

Hypothesis one stated that the GRRs (self-esteem and religiosity), the SRRs (frequency of prayer, frequency of religious service attendance, and frequency of adolescent-specific religious service attendance), and perceived health would all be positively correlated. Bivariate correlations were utilized to examine the pattern of

relations between the variables of interest (See Table 11). Religion as a GRR was positively correlated to religion as a SRR [$r(80) = .57, p \leq .001$]. Religiosity as a GRR was not significantly correlated with either self-esteem [$r(81) = .15, p = .17$] or perceived health [$r(81) = .10, p = .38$]. Religion as a SRR and perceived health were not significantly correlated [$r(80) = .20, p = .02$]. Self-esteem was positively correlated with religion as a SRR [$r(80) = .25, p = .03$] and perceived health [$r(100) = .26, p = .01$].

Table 11
Correlations Between Variables of Interest

	Self-Esteem	Religiosity as a GRR	Religion as a SRR	Perceived Health
Self-Esteem		.15 (N=83)	.25* (N=82)	.26** (N=102)
Religiosity as a GRR			.57** (N=82)	.10 (N=83)
Religion as a SRR				.20 (N=82)
Perceived Health				

*Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

Hypothesis Two: Mediation Model

Hypothesis two stated that religion as an SRR would mediate the relationship between religiosity as a GRR and perceived health. In line with the information provided by Baron and Kenny (1986), three regression analyses were conducted to confirm that religiosity as a GRR predicts perceived health in disabled adolescents, religiosity as a GRR predicts religion as a SRR, and religion as a SRR predicts perceived health. A stepwise multiple regression analysis was conducted with perceived health as the outcome variable, religion as a SRR as the predictor in the first step, and religiosity as a GRR as the predictor entered in the second step of the regression model. A Sobel test was not performed as the regression was not statistically significant [$R^2 = .04, F(1, 79) =$

1.66, $p = .20$].

Table 12

Mediation Model for the Religion as a SRR as a Mediator of the Relation Between Religiosity and Perceived Health

Model	Predictor	<i>B</i>	SE <i>B</i>	β	R^2
Step 1					.01
	(Constant)	2.97	.62		
	Religiosity as a GRR	.12	.14	.09	
Step 2					.04
	(Constant)	3.64	.74		
	Religiosity as a GRR	-.04	.17	-.03	
	Religion as a SRR	.22	.13	.22	

* $p \leq .05$

** $p \leq .01$

Hypothesis Three: Moderation Model

Hypothesis three stated that religiosity as a GRR would moderate the relationship between self-esteem and perceived health. In line with Warner (2012), the scores for the predictors of religiosity as a GRR and self-esteem were centered by subtracting the sample means. A variable representing the interaction between these two variables was calculated by multiplying the centered scores of the religiosity as a GRR variable and the self-esteem variable. A stepwise multiple regression analysis was conducted with religiosity as a GRR and self-esteem as predictors entered in the first step and the interaction term variable entered in the second step of the model to predict perceived health. The centered score for self-esteem was the only variable that showed statistical significance (see Table 13 for the statistical significance in Step 1 and Step 2 of the analysis). The regression model was not statistically significant [$R^2 = .11$, $F(1, 79) = 3.08$, $p = .03$].

Table 13

Moderation Model for Religiosity as a Moderator of the Relation Between Self-Esteem and Perceived Health

Model	Predictor	<i>B</i>	SE <i>B</i>	β	R ²
Step 1					.10
	(Constant)	3.47	.11		
	Centered Religiosity as a GRR	.07	.14	.05	
	Centered Self-Esteem	.07	.03	.30**	
Step 2					.11
	(Constant)	3.48	.11		
	Centered Religiosity as a GRR	.05	.14	.04	
	Centered Self-Esteem	.07	.03	.28**	
	Centered Religiosity as a GRR and Centered Self-Esteem Interaction Variable	-.03	.03	-.09	

* $p \leq .05$

** $p \leq .01$

Discussion

The implications of this research are vast. This study lays the groundwork for future research regarding disability, self-esteem, and religion. Additionally, this study not only provides a pathway toward rethinking the conceptualization of disability using a salutogenic framework, but also creates a framework for future research regarding disability to be rooted in salutogenic theory. Despite these contributions to the current literature and future research, as with any study, there were limitations regarding this research.

A lack of diversity was found in the sample regarding race with approximately 80% of the sample being white. This lack of racial diversity necessitates replication of this study with a more racially diverse sample. Likewise, this sample lacked religious diversity as well. The majority of participants were Christian, with Baptist being the most represented denomination by far. Future studies should strive for more varied and representative samples of religions in participants to seek to understand if findings hold true for a variety of religions. These two major limitations of this study make generalization of the results difficult, but do not negate this significance of these findings' contribution to the current body of literature regard disability, self-esteem, religion, and salutogenic theory.

There was no statistically significant correlation found between self-esteem and religiosity as a GRR, which was an unexpected result in this study given previous research showing religion's association with self-esteem both in adults and adolescents

(Ghorbani et al., 2016; Smith & Crosby, 2017; Gábová et al., 2021). Only one of these studies, however, conceptualizes the variables used to measure “religion” as anything beyond religious action. Gábová et al. (2021) explore religiosity versus spirituality, two variables that are more in line with the religiosity as a GRR variable in this study. Gábová et al.’s (2021) study also provides a possible reason behind the lack of statistical significance between self-esteem and religiosity as a GRR. Findings from Gábová et al. (2021) suggest that spiritually and not religiosity is associated with increases in self-esteem. Due to the measure used for religiosity as a GRR, there was no differentiation between religiosity and spirituality, which could have impacted the results. Additionally, the measure used in the present study was only one question due to the archival nature of the data and did not provide an in-depth measure of the variable of interest. Future studies should differentiate between religiosity and spirituality when exploring religiosity as a GRR and should use a validated and thorough measure with participants.

This study found a statistically significant correlation between self-esteem and religion as a SRR. Smith and Crosby’s (2017) research provides a possible explanation for this finding, noting that church peer support had a direct relationship on self-esteem for adolescents. Given that two of the three variables that comprised the religion as an SRR variable involved attending religious events, either for all ages or specifically targeted for adolescence, this may have increased feelings of peer support in participants. This idea is further supported by Ten Kate et al.’s (2017) suggestion that the life-satisfaction associated with religion is fostered by the sense of community and solidarity found in belonging to a religious community.

Upon deeper investigation, it was found that of the three factors comprising the religion as a SRR variable, only one was significantly correlated with self-esteem. The variable exploring how often participants pray (H1RE6) was significantly positively correlated with self-esteem. This result is supported by previous research that associates increased frequency of prayer with increases in self-esteem for adolescents and notes that adults with physical disabilities are more likely to pray multiple times a day (Hodge & Reynolds, 2018; Gábová et al., 2021). Baesler (2002) findings that frequency of prayer directly impacts relational intimacy with God may be one possible explanation for this association. This explanation is further supported by findings that view of God is directly related to self-esteem in adolescents (Smith & Crosby, 2017).

The findings of this study not only align with the current body of research but add to its depth by showing a similar pattern of relation between religious action and self-esteem in disabled adolescents as was found in able-bodied adolescents. Future studies should endeavor to use more specific SRR variables to determine what aspects of involvement in religious community or personal religious practice are more directly related to self-esteem for disabled adolescents. Based on Smith and Crosby (2017) and Gábová et al.'s (2021) research, one such variable would be view of God, which was associated with self-esteem in both studies. Smith and Crosby's (2017) findings suggest an additional path of future research in exploring the quality of church peer and adult relationships' impact on self-esteem for disabled adolescents. This vein of research would be particularly impactful for this population as it is suggested by Ojok and Musenze (2019) in their qualitative exploration of religious texts of Christianity, Judaism, and Islam that these texts largely use negative language surrounding disability. This

negativity surrounding disability in religious texts may manifest itself in the congregation as well. Future studies should explore both church peer and church adult relationships and views of disability and how this might impact the self-esteem of disabled adolescents in their congregation.

A statistically significant positive relationship was found between religiosity as a GRR and religion as a SRR. Due to the nature of these variables (i.e. religious action in the form of an SRR being born out of one's religiosity in the form of a GRR), the statistically significant positive correlation between religiosity as a GRR and religion as an SRR was expected. This finding expands the current body of research in that it shows that the connection between religious action and religiosity holds true for disabled adolescents.

The lack of statistically significant correlation between religiosity as a GRR and perceived health was an unexpected outcome in this study. Though not directly correlated with perceived health by previous studies, previous research does show an association between religion and positive health outcomes (McCullough et al., 2000; Smith et al., 2003; Abu-Raiya & Pargament, 2015; Cheadle & Schetter, 2017; Veselska et al., 2018). Additionally, perceived health was utilized as an outcome variable in this study due to its correlation with SOC, an outcome variable in salutogenic research (Eriksson & Lindström, 2006; Braun-Lewensohn et al., 2022). With its status as a GRR, religion was expected to correlate to SOC (McCullough et al., 2000; Anyfantakis et al., 2015; Dell'Olio et al., 2018; Mittelmark & Bauer, 2022). The finding that there is no statistically significant correlation between religion as a SRR and perceived health was another unexpected outcome of this study. The lack of correlation between religion and

perceived health in previous studies likely contributed to this lack of statistical significance as with the other religious variable utilized in this study. Despite perceived health's previous correlations with SOC, perceived health and SOC are different constructs. Future studies should utilize measures of SOC as outcomes variables as this aligns with previous salutogenic studies and provides a validated measure to utilize with participants.

Beyond providing a standardized measure for future research, the construct of SOC has been associated with many positive outcomes, thus providing the basis for utilization in research beyond mere validation of the measure's utility. SOC has been previously associated with perceived health, lower anxiety and depression, as well as quality of life (Eriksson & Lindström, 2006; Luutonen et al., 2011; Anyfantakis et al., 2015; Uchida et al., 2018; López-Martínez et al., 2019; Leung et al., 2021; Eriksson, 2022; Greco et al., 2022; Aguilar-Latorre et al., 2023; Li et al., 2023). Specifically in adolescence, SOC has been associated with many positive outcomes including perceived health, health behaviors, and mental health (Eriksson & Lindström, 2006; Moksnes & Espnes, 2020; Braun-Lewensohn et al., 2022; da-Silva-Domingues et al., 2022).

Due to this lack of research surrounding SOC and disability, future research with disabled individuals, especially disabled adolescents, with a validated measure of SOC is necessitated. Research surrounding SOC and disability is especially important because SOC centers the individual, which allows for more individualized coping strategies to be used rather than universal coping strategies whose utility is bound to the views of the majority culture (Antonovsky, 1996; Mittelmark & Bauer, 2022). Due to the most widely held conceptualizations of disability viewing disabled as a moral failing or a defect

needing to be cured, the use of SOC would allow for a wider view of what could be utilized as a positive aspect of the disabled experience (Olkin, 2002). For example, use of mobility aids is viewed by many able-bodied individuals as something negative in a disabled individual's life while many disabled people view their mobility aids as life-giving tools that give them autonomy and allow for fuller participation in society. Research utilizing salutogenesis, specifically with SOC as an outcome measure, would more easily allow for the conceptualization of mobility aids as a coping strategy for disabled individuals.

Beyond research surrounding SOC and disabled populations, this study necessitates future research with a wider and more varied sample size so that disability types beyond physical disability can be explored and compared. Hodge and Reynolds (2018) highlight the necessity for a more varied sample categorized by disability type with their finding of unique religious profiles which varied depending upon the participants' disability type. Due to the lack of global definition of disability, inclusion criteria for disability status in future research should be wide instead of restrictive (Altman, 2001; U.S. Department of the Interior, 2023; U.S. Department of Labor, n.d.). The conceptualization and definition of disability must also be kept in mind when interpreting results of the present study.

At the time of data collection in 1994-1995, the Americans with Disabilities Act had only been law since 1990 (U.S. Department of the Interior, 2023; U.S. Department of Labor, n.d.). Prior to this, disability protections existed in Section 504 of the Rehabilitation Act of 1973 but were not implemented or enforced until protests in 1977 (U.S. Department of the Interior, 2023). In terms of education for disabled people, it was

only since 1975 with the passage of the Education of All Handicapped Children Act that disabled children were declared to have a right to public education (U.S. Department of the Interior, 2023). Given the right to public education had only been guaranteed for approximately twenty years prior to this study, Section 504 had only been enforced for approximately eighteen years, and full protections for disabled people under the ADA had only been law for five years, students willing to disclose a disability may have been more limited than a participant pool of today. Society's conceptualization and understanding of disability has continued to evolve and become more inclusive, which would alter the participants who would be included in this study if the study was conducted today as well (U.S. Department of the Interior, 2023; U.S. Department of Labor, n.d.).

The more inclusive definition of disability of today, as well as society's growing understanding of disability and its impacts is a major reason replication of this study with current data is necessary. Though the timing of when the data used in this study was collected would not change the participant's physical disability (i.e. whether the participant was physically disabled or not), it might change whether the participant was willing to disclose their disability or even acknowledge a physical limitation to themselves. The timing of data collection might also change whether the parents of the participant allowed them to even consider themselves as having a physical limitation. This might be reflected in the discrepancy between participants who said they solely had trouble using their limbs and were not disabled and those who said they had trouble using their limbs and were disabled with only fourteen of the sixty-seven participants who

responded to the question regarding disability status considering themselves to have a disability.

The statistically significant correlation between self-esteem and perceived health was an expected result. Previous research has shown that self-esteem is related to various physical and mental health outcomes and thus should also have an influence on one's perception of health (Kavas, 2009; Christie-Mizell et al., 2010; Hayter & Dorstyn, 2014; Orth et al., 2014). This result deepens the existing body of research by expanding the association between self-esteem and perceived health to include disabled adolescents. Future studies regarding disabled adolescents and perceived health should use a more thorough measure of perceived health. The present study used only a one question measure due to the constraints of the archival data. In the future measure of physical and mental health should be used with disabled adolescents. Disease or disability specific measures of health should also be used to explore what aspect of current illness or disability self-esteem is most related to.

Religion as a SRR did not mediate the relationship between religiosity as a GRR and perceived health. This was due to the lack of statistical significance for the correlations between both religiosity as a GRR and perceived health as well as religion as a SRR and perceived health. With more specific measures in future research for both the religion variables, a measure of SOC instead of perceived health, and a larger, more diverse sample size, an exploration of the mediation of this relationship may be possible.

Religiosity as a GRR did not moderate the relationship between self-esteem and perceived health. There was no statically significant correlation between religion as a GRR and self-esteem or perceived health. As was previously mentioned, the nature of the

measure used for both religiosity as a GRR and perceived health may have played a role in this. Using a more comprehensive measure of both religiosity and a GRR as well as measuring SOC rather than perceived health in future research may allow for documenting the expected moderation.

Clinical Implications

In clinical practice this study provides clinicians with an understanding of factors in disabled adolescents' lives on which to focus in order to help them better manage stress. Particularly for clinicians practicing in areas of high religiosity or with deeply religious clients, understanding the generalized resource of religion and how it can be utilized to help disabled adolescents cope with stress is of great importance. A specific example from this study would be frequency of prayer's association with increased self-esteem. Given this understanding of prayer as a SRR for religious clients, clinicians are better equipped to discuss a religious client's prayer life with them and help clients utilize this practice to better manage their stress.

Self-esteem's positive association with perceived health for physically disabled adolescents provides another clinical implication for this study. As previous research has shown, the most widely held and oldest models of disability hold disability as a defect of physiology or morality that needs to be cured, a view which could negatively impact self-esteem (Olkin, 2002). Jung et al. (2022) found that those who had higher and steadier levels of disability acceptance were more likely to have higher levels of self-esteem. This means that it is imperative for clinicians to foster their client's disability acceptance, not only due to its direct impact on self-esteem but its indirect impact on perceived health as well. A salutogenic framework is an ideal model to foster such acceptance as it stands in

stark contrast to previous conceptualizations of disability that solely focus on the negatives that need to be corrected. A salutogenic framework provides clinicians a means to go beyond merely helping clients cope with their disability, but to aid them in identifying and utilizing resources that help them thrive. Examples of GRRs and SRRs for disabled individuals have already been noted by in Dell'Olio et al. (2018), with social support and persistence being mentioned as GRRs and mobility aids and medication being mentioned as SRRs among others. Due to the global nature of salutogenesis' definition of SOC, GRRs, and SRRs, clinicians are able to sit with the client and discuss what most benefits them as an individual existing with a disability in society. This theory can aid clinicians in reframing certain aids or accessibility needs as a positive instead of a negative as society often views them. A salutogenic approach by clinicians also gives clients agency to decide for themselves what is beneficial to them, which is especially important when an inaccessible society and paternalistic medical system often attempts to strip disabled people of their agency at every turn.

From a broader perspective, the framework of salutogenesis utilized in this paper also provides clinicians with a new viewpoint with which to conceptualize clients and approach treatment. Beyond conceptualization of clients, the salutogenic theory unitized in this study can provide clinicians with a new framework with which to design interventions to increase resilience and to provide practices that foster well-being instead of simply decreasing stress. Clinicians can explore how approaching current models with a salutogenic outlook might heighten the model's positive benefits. For example, approaching CBT with a salutogenic outlook would allow for interventions more tailored to the client. Overall, salutogenesis allows clinicians to look at the client and see a whole

person instead of looking at a client and seeing ways to apply interventions already known to the clinician. Utilizing the salutogenic framework allows clinicians to recognize the client's unique qualities to help them decrease their stress and foster their well-being.

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Appendix

Disability: The construct of disability was measured by H1PL1 in the Add Health Study Wave I In-Home Questionnaire. This question asks the participant to identify whether they have difficulty with use of their limbs due to a permanent physical condition and gave response choices of yes, no, don't know, and refuse.

Self-Esteem: The construct of self-esteem was measured using H1PF30 and H1PF32-H1PF36 in the Add Health Study Wave I In-Home Questionnaire. These questions specifically discuss self-perceptions related to self-esteem ranging from having good qualities to liking oneself and feeling loved. Responses were scored on a Likert scale ranging from 1-5 with one being strongly agree and five being strongly disagree.

Religiosity as a GRR: Religion as a GRR was measured using H1RE4 in the Add Health Study Wave I In-Home Questionnaire. Participants were asked to rank how important religion is to them on a Likert scale ranging from one to four where one is very important and four is not important at all.

Religion as a SRR: Religions as a SRR was measured using H1RE3, H1RE6, and H1RE7 in the Add Health Study Wave I In-Home Questionnaire. Responses to H1RE3, which pertains to prayer, were on a Likert scale of 1-5 with one being at least once a day and five being never. Responses to H1RE6 and H1RE7, which pertain to service and event attendance, were recorded on a Likert scale ranging from one through four where one is once a week or more and four is never.

Perceived Health: Perceived Health was measured using H1GH1 in the Add Health Study Wave I In-Home Questionnaire. Participants were asked to rate their current health using a Likert scale ranging from 1-6 with one being excellent and six being refused.

