



Inclusion of Natural Supports During the Transition to Adulthood for
Youth with Complex Communication Needs: A Review of Selected

Literature

Maegan Chow

January 2019

Executive Summary

- An individual with Complex Communications Needs (CCN) is unable to communicate through speech alone. Instead, the individual communicates using Augmentative and Alternative Communication (AAC), which is communicating through various methods other than oral speech, and includes using body language, gestures, pointing to a symbol or picture, or using text to speech technology (Communication Matters, 2018; Howery, 2015).
- Youth with Complex Communication Needs have a similar process in their transition to adulthood as youth who are able to communicate through speech alone. However, there is a greater emphasis on increasing the number of channels used and opportunities to communicate in each transition domain (work, education, vocation, home, income, community integration, and health).
- Natural Supports can play a major role to help guide the youth to experience success in each transition domain by guaranteeing that the youth has the opportunity to effectively communicate by using their AAC in their environment. However, due to the numerous different forms of AAC and limited familiarity each environment has of AAC, the youth's transition process can be more complex, since AAC is the primary way for the youth to use their voice.
- Calgary and Area RCSD views the youth transition to adulthood in three domains that encompass education, work, and vocation, housing, income, and community integration, and health (Adair, 2018).

Methodology

- The literature reviewed consists of research that came from the Calgary and Area RCSD literatures reviews by Adair (2018) and Howery (2015) and selected peer-reviewed articles with publication dates between 2008-2018.
- The peer-reviewed articles were found by the searching the following terms: *natural supports*, *natural supports and disabilities*, *natural supports and youth transition to adulthood*, *complex communication needs*, *complex communication needs and natural support*, *youth transition to adulthood and disabilities*, on the databases of ERIC, SocINDEX, and the federated search at the University of Calgary library.

Key Findings

- Communication grants the youth the opportunity to feel included during their planning process and can produce an individualized transition plan that will reflect the youth's goals, strengths, and abilities. In addition, the youth can "practice and develop their communication skills which may...lead to greater participation in other meaningful societal roles such as post school education and paid work" (Trembath et al., 2010, p. 895), which is a key aspect for a successful transition.
- Natural Supports will take a communication facilitator and instructor role at the start of the youth's transition, but as the youth becomes comfortable and included in their environment, they can confidently communicate on their own and the natural supports will remove themselves from these roles.
- When the youth starts their transition to adulthood, the youth may be dependent on their natural supports. However, as the youth goes through their transition, they start to become independent from their natural supports. All youth, but particularly those with CCN who use

AAC may still be dependent on their natural support in some transition domains compared to other domains.

- The youth's transition has no clear timeline due to:
 - The youth's limited exposure to different opportunities that can influence the skills they want to develop and how they visualize their adulthood,
 - Finding an environment that will support the youth and be willing to learn how to communicate with the youth using their AAC will take time,
 - Building capacities will take a significant amount of time throughout the youth's transition and some capacities may take a longer time to build than other capacities,
 - Navigating policies that are complex and present many barriers may cause the youth to become lost in the system and take a longer time to successfully get transition across that domain.

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Scope

This literature review focuses on youth with Complex Communication Needs who are transitioning to adulthood and their natural supports. In addition, this review will be relevant to service providers and organizations that provide supports and services to youth with Complex Communication Needs. This review focuses on all youth with Complex Communication Needs and is not specific to or differentiates between youth with Complex Communication Needs whose communication is impacted by either a congenital or acquired condition.

Introduction

Youth with Complex Communication Needs (CCN) transitioning to adulthood is a complicated process, which makes the planning and preparation for adulthood a significant task. Youth with CCN have a similar transition process as youth who communicate through speech alone, but with a greater emphasis on increasing the opportunities to communicate in the transition domains (work, education, vocation, home, income, community integration, and health). For the youth to experience a genuine and successful transition to adulthood will be based on the opportunities the youth has to declare their wants, needs, and goals (Howery, 2015). For youth with CCN, to convey their own goals, wants, and needs, is not done through oral speech but instead is done through different means.

Natural supports are individuals who are directly involved in the youth's life and provide encouragement and assistance through their personal relationship with the youth. Natural supports are encouraged to participate in the transition process to ensure that the youth is involved and can express their concerns, wishes, and goals. The inclusion of natural supports during the youth's transition can result in the youth having meaningful contributions in a

workplace, education program, housing, and community (Uditsky, 2017). Natural supports will help guide the youth to experience success in each transition domain by striving for the youth to have the opportunity to effectively communicate by using their Augmentative and Alternative Communication (AAC) in their environment. However, due to the different forms of AAC and the limited familiarities the environment has of AAC can make the youth's transition process more complicated, since AAC is the primary way for the youth to use their voice. Overall, the inclusion of natural supports will help the youth increase their quality of life and to have meaningful contributions during and about their transition, which leads the youth to have a successful transition to adulthood.

Complex Communication Needs (CCN)

An individual with Complex Communications Needs (CCN) is unable to communicate through speech alone. Individuals with Complex Communication Needs will communicate through other means, including body language, gestures, and augmentative and alternative communication (AAC), or a combination of methods. With CCN, "as the complexity of the disability increases, so does the complexity of their communication needs" (Howery, 2015, p. 20), meaning that CCN does not look the same for every youth. Complex Communication Needs will look different for each youth since the way the youth uses their body language, AAC, or the combination of these methods will depend on their personality and strengths.

The primary way all youth communicate is through Augmentative and Alternative Communication (Howery, 2015). All youth use AAC in their day-to-day communication, by waving, using gestures, and making facial expressions (Communication Matters, 2018; International Society for Augmentative and Alternative Communication [isaac], n.d.).

Augmentative and Alternative Communication (AAC), is communicating through various means other than oral speech this includes using body language, gestures, pointing to a symbol or picture, or using text to speech technology (Communication Matters, 2018; Howery, 2015). AAC can be divided into aided communication and unaided communication (Communication Matters, 2018; Howery, 2015). Unaided communication refers to communication that only involves the body and no additional materials, this includes using natural speech, Sign Language, and facial expressions (Howery, 2015). Aided communication refers to the material that is external to the youth (Howery, 2015; Communication Matters, 2018). Aided communication can be further divided into, no tech AAC, which involves communicating using body language, gestures, facial expressions, pen and paper, and communication boards that are composed of universal symbols and words, low tech AAC, or “battery operated devices where messages are digitally recorded” (Howery, 2015, p. 15), and high tech AAC is a technological device that provide speech output and produce text (Howery, 2015; Communication Matters, 2018). The method of AAC that the youth uses must be considered throughout the transition, to understand how the youth envisions their adulthood.

Natural Supports

Natural supports are informal relationships that the youth has (The Change Collective, 2017; field, 2012; Hirsch, 1980). Natural supports can range from friends, family, co-workers, neighbours, partners, roommates, and mentors (The Change Collective, 2017; Walsh & Connelly, 1996; Hirsch, 1980; field, 2012). Natural supports can also include individuals who are paid and providing services to the youth, but they are not directly working with the youth. These natural supports can be a barista or a librarian that the youth had developed a relationship

with (field, 2012; The Change Collective, 2017). The development of natural supports depends on the youth's environment, interests, passions, ambitions, diagnosis, and desires. When the youth has the opportunities to peruse their interests, passions, desires or needs the youth is able to develop these natural supports in a casual setting (field, 2012).

There is a wide range of roles that natural supports provide including: helping the youth develop a sense of belonging, fostering critical thinking skills, assisting in building their communication skills, meeting their basic needs and other goals, and increasing their autonomy, well-being, and self-esteem (The Change Collective, 2017; Fisher & Shogren, 2012; field, 2012). Natural supports can provide material support (assisting with the day-to-day living), emotional support, or instrumental support (helping with chores and providing transportation) (Walsh and Connelly, 1996). As the youth transitions to adulthood, their natural supports are there to help the youth cope with the changes that occur, by providing cognitive guidance (providing advice and information), social reinforcement (providing praises), and tangible assistance (helping out to complete activities) (Hirsch, 1980). Natural supports can have different roles throughout the youth's transition, which will be based on the support the youth needs to ensure that the youth has a successful transition to adulthood.

Youth Transition to Adulthood (YTA)

Youth transition to adulthood (YTA) refers to youth who are developing independence, becoming employed, living independently, managing their own health needs, and becoming part of community by developing meaningful relationships (Henniger & Taylor, 2014; Dave & Beamish, 2009; Adair, 2018; Alberta Children and Youth Initiative [ACYI], 2008). In addition, YTA can refer to a youth who is no longer a 'youth' and is now an adult in terms of their age and

legal status. The planning and preparation period of the youth's transition to adulthood occurs while the youth is still attending a school program (Davies & Beamish, 2009; Henninger & Taylor, 2014) and the youth is still attending their pediatrics health care provider.

Calgary and Area RCSD views the transition to adulthood in three domains that collectively encompasses education, work, and vocation, housing, income, and community integration, and health (Adair, 2018). Education, work, and vocation focuses on the social support that will assist the youth in developing skills and obtaining suitable work in their employment and education and will be determined from the youth's interests and goals. Housing, income, and community integration involves the youth becoming part of a community that promotes inclusion and a sense of belonging. In addition, the community will provide and assist the youth in accessing resources that will build their skills and provide emotional and material support. The health domain involves the transition from pediatric health care services to adult health care services (Adair, 2018; Osgood, Foster, & Courtney, 2010).

For youth with CCN, an essential part of their transition within the housing, income, community integration, and work, vocation, and education domains are that these environments are promoting inclusion by allowing the youth to use their AAC (Howery, 2015). For youth with CCN, their natural supports and service providers will provide opportunities for the youth to demonstrate and reach their full potential in the youth's workplace, education, and vocation environments. In addition, the environments will encourage the youth's peers to actively communicate with the youth. By the environment encouraging the use of AAC, the environment encourages the youth to develop their own skills and achieve the goals they have in these environments (Howery, 2015).

The health domain can present barriers that prevent the youth from accessing the services, including the changes in health care professionals, policies, funding, and eligibility for programs (Osgood et al., 2010). To achieve a successful transition within the health domain, the youth should have:

a written plan, involvement of the family doctor,...asking and listening to youth about what they need, the use of technological tools and measurement scales, attending to readiness, awareness of simultaneous developmental changes in other areas, teaching youth about their own illness history, working with parents, attending to relationships including the loss associated with leaving behind pediatric providers and the establishment of sound relationships through good communication with adult providers.

(Adair, 2018, pp. 28-29)

For youth with CCN, the health domain also focuses on meeting these recommendations.

However, there is a large emphasis on ensuring that the future adult health care professionals are aware of the way the youth communicates. Service providers, natural supports, and youth will work together to create a plan that is based on the youth's strengths, health, and communication style to allow health care professionals learn more about the youth (Howery, 2015). The health domain focuses on planning the transition with a person-centred approach, to provide strategies that focus on the youth building their own skills to become independent, so they can be responsible for their own health (Adair, 2018). Therefore, allowing the youth to use their AAC is a key component which can emphasize how important communication.

For youth with CCN to experience a successful transition in each of the domains, the youth will use their goals as a guideline throughout their transition. To involve the youth goals during the transition, will consist of the youth having the opportunity to use their voice. During

the planning period of the transition, the service providers, families, and youth will focus on examining the environments to see if the environment will promote the use of the youth's AAC and provide assistance to help the youth complete their goals. As the service providers, natural supports, and the youth themselves collaborate with each other, the youth will experience a successful transition because the environments will encourage the youth to communicate, which can lead the youth to develop a sense of belonging. Including the natural supports during the process will promote and ensure that the youth does have someone who will help advocate, teach, and support the youth to ensure that their transition is successful, and their goals are met.

Methodology

This literature review utilizes research that came from the Calgary and Area RCSD literatures reviews from Adair (2018) and Howery (2015) as a foundation. Additional peer-reviewed articles were acquired by the searching the following terms: *natural supports*, *natural supports and disabilities*, *natural supports and youth transition to adulthood*, *complex communication needs*, *complex communication needs and natural support*, *youth transition to adulthood and disabilities*. These terms were then searched into the databases of ERIC, SocINDEX, and federated search at the University of Calgary library. To narrow down the number of articles, the publication date range was narrowed down to a current ten-year period from 2008 to 2018.

A major limitation that exists in the literature, is that there is no literature that specifically focuses on the role natural support has during a youth with CCN transition to adulthood. Instead, the literature mainly focused on YTA for youth with and without a disability but was not specific to youth with CCN. However, there was a small number of articles that focused on youth with

CCN transitioning to adulthood. The majority of the literature focused on the three topics separately but did not link the three topics with each other.

When finding the literature, a majority of the literature involved natural supports throughout the articles, but they were not considered to be part of the article's keywords or metadata. In addition, there was a limited number of articles that focused on the roles natural supports has for youth with disabilities, specifically, Complex Communication Needs. The literature that included natural supports as a keyword was based on mentorships and mentorship programs in post-secondary educations. The Walsh and Connelly (1996) and Hirsch (1980) studies are included, despite being outside of the ten-year range of the search because Walsh and Connelly and Hirsch identified the foundations on what defines natural supports, what natural supports consist of, and the roles of natural supports.

Key Findings

Communication is Key to Transition Planning

An essential aspect to a successful transition to adulthood, is to have youth with CCN participate and communicate throughout the transition. When youth have the opportunity to communicate, they are able to discuss what goals they want to achieve, what needs to be changed to provide more challenges, what opportunities to participate in, how they envision their future, and what is discomfoting or challenging (Howery, 2015). In addition, communication allows the youth to develop their own self-determination and have real choices that will reflect their own strengths and ambitions (Howery, 2015). Communication grants the youth the opportunity to feel included during the planning process to produces an individualized transition plan that will reflect the youth's goals, strengths, and abilities. For youth with CCN, they have less control

over what they could do during their own transition due to the limited opportunities to communicate (Trembath, Balandin, Togher, & Stancliffe, 2010). However, by having their natural supports involved, the youth has the potential to have more control and involvement, because their natural support will work with the youth to create more opportunities to communicate. As the youth continues to communicate throughout their transition, the youth can “practice and develop their communication skills which may...lead to greater participation in other meaningful societal roles such as post school education and paid work” (Trembath et al., 2010, p. 895) this is key for a successful transition.

Extracurricular activities allow the youth to increase their own social networks, sense of belonging, build their skills, and expand their interests, strengths, and preferences (Carter, Swedeen, Moss & Pesko, 2010). When the youth engages in extracurricular activities, the activities start to shape the youth's transition to adulthood, because the youth can decide what it is that they want to do based on their enjoyment of these activities and if the activity matches their own goals and passions (Carter et al., 2010). Attending extracurricular activities that matches the youth's goals and passions can lead to a successful transition because the youth are gaining a valued position and role in their extracurricular activities, which can help with the way they view their own skills and capabilities during adulthood. In addition, the activities can lead the youth to feel confident and start communicating for themselves, instead of someone communicating for them.

During the planning period of YTA, the natural supports will assist the youth with CCN in accessing activities that are relevant to the youth goals (Douglas, Kammes, Nordquist & D'Agostino, 2018). In addition, the natural supports are assisting the youth to have meaningful participation by guaranteeing that the youth can use their AAC. This allows peers, co-workers,

employers, and roommates interacting with the youth to learn how to communicate with the youth through the youth's AAC, so they can effectively support and develop a relationship with the youth. When the youth have the ability to communicate and feel included, they are able to demonstrate their full potential and skills (Douglas et al., 2018). However, if the youth does not have the opportunity to communicate, they may be attending programs or activities that promote exclusion and do not fit their needs or aspirations. Therefore, when the youth communicates during the planning process, they can decide what activities to participate in, which then allows the youth to develop new social supports, skills, and a clear picture on how they view their adulthood.

Natural Supports Must Be Involved During the Transition

The role of natural supports may differ from the typical youth to youth with CCN. The typical youth are able to communicate on their own, so they do not need a natural support to be their communication facilitator. In contrast, youth with CCN are unable to communicate through speech alone. Therefore, for a short term, the natural support will be their communicator to promote opportunities for the youth to communicate, so they can participate in and contribute in a meaningful manner (Fisher & Shogren, 2012). With natural supports being a communication facilitator, they are able to help the youth develop a sense of inclusion within their environment (Fisher & Shogren, 2012) and provide opportunities to develop relationships (The Change Collective, 2017). However, they still provide the youth with material, instrumental, and emotional support, but there is an emphasis that natural supports are the youth's communicator for a short term. As the natural supports are helping the youth to communicate their own needs

since they have a greater understanding of the youth's communication pattern and their AAC (Douglas, et al., 2018).

The natural supports can develop an instructor role because at the start they initiate the opportunities for the peers in the youth's environment to communicate with the youth (Douglas et al., 2018). This allows individuals around the youth to learn the use of AAC, so they can assist the youth to fulfil their goals, build skills, and develop relationships. The natural supports and the youth will collaborate to demonstrate to the youth's peers on how the youth prefers to communicate and the youth's communication patterns (Douglas et al., 2018; Howery, 2015). The natural supports and youth will provide the peers additional demonstrations and models on how to communicate with the youth (Carter, Asmus, & Moss, 2013). To take the instructor role, the natural supports may initiate conversations with the youth and the peers in the youth's environment, to determine what activities the youth wants to participate in and how the youth can be involved in these activities (Carter et al., 2013). Overall, natural supports will guide the peers who are in the youth's environment to support the youth to reach their YTA goals and how to effectively incorporate the youth's AAC.

Carter et al., (2010) suggested that by removing paid and formal supports from extracurricular activities, youth with CCN have the ability to facilitate the interactions between their peers and activities. However, to do this the natural supports should be involved at the start to ensure that the interactions between the youth, the peers, and the activities are meaningful and promotes the youth to feel included. The natural supports and the youth will collaborate to implement strategies that will ensure that the peers and the youth are working together to create an inclusive environment (Carter et al., 2010). These strategies include the natural support, acting as a role model for the youth's peers (using appropriate language and respectful

interactions), facilitating the interactions so the peers and youth with CCN can initiate the interactions, and working with the peers to implement effective communication skills and to encourage the youth to communicate with their AAC in the environment (Carter et al., 2010; Biggs, Carter, Bumble, Barnes & Mazur, 2018). By promoting these strategies, peers are developing relationships with the youth through meaningful interactions. This allows the youth to achieve their goals and increase their skills, since the natural supports can implement these strategies at the start to ensure that the youth can reach their full potential.

Independence and Dependence is Non-Linear

When the youth starts their transition to adulthood, the youth may be dependent on their natural supports. However, as the youth goes through their transition, they start to become independent from their natural supports, but they may still be dependent on their natural support in some transition domains compared to other domains. Throughout the youth's transition, they may be dependent on their natural support to ensure that the environments will meet their goals and the activities that they will participate in will be relevant to their needs. As the youth transitions to adulthood, they become independent from their parents' expectations by developing their own self-determination (Adair, 2018). However, to develop their self-determination the youth needs their natural supports and service providers to ensure that they are able to discuss ways to achieve their own self-determination. Becoming independent is non-linear for the youth, because at the start of the transition, the service providers and natural supports may have control over what happens, and the youth will be dependent on them. However, as they progress through their transition, they become independent by having more

say, but they may be dependent on their natural supports to ensure they have the right resources to achieve their goals.

When the youth has the transition goal of living independently, they must develop the daily living skills that are associated with living independently (Henninger & Taylor, 2014). As the youth completes this goal, they are becoming independent from their parents and other supports. However, they may be dependent on their roommates, support staff, and natural supports that could potentially be living with or visiting them at their home. For the youth to successfully develop independence within their new home, there has to be aided and unaided AAC within the house (McNaughton, Bryen, Blackstone, Williams, & Kennedy, 2012). By having each of these items, the youth will have the opportunity to develop the communication resources they need to complete their daily activities and to self-advocate for their own needs, health, and concerns for their safety (McNaughton et al., 2012). The youth's roommates, support staff, and natural supports will be there to support the youth, by understanding the youth's communication process and what the youth needs from them to achieve their daily living skills. As the youth gets situated in the house and the individuals within the youth's house understand the youth, the youth starts to become more independent in the housing domain.

In the health care services, the youth could be dependent on their natural supports since the medical professionals that the youth will encounter may have a lack of specific training and understanding on the use of AAC (Osgood et al., 2010). When the medical professionals are unaware of the youth's own communication ability and previous medical history natural supports may maintain the role of being an instructor or communicator. The youth will be dependent on their natural support to ensure that the professionals have a correct understanding of how the youth views and understands their own health, what treatments and medical interventions have

worked, what the youth's medical history looks like, and how the youth communicates. Over time the youth will develop an independence to self-advocate for their own health, but may still be dependent on the natural supports since they still provide the material and emotional support

Transition Has No Clear Timeline

Early exposure to hands on experiences can help the youth plan for their transition because they allow the youth to explore what they would like to do. Based on the number of hands on experiences the youth has been exposed to (Adair, 2018) will impact their development of skills and how they visualize their adulthood (Stewart et al., 2014). If the youth with CCN has little exposure to various hands on experiences it will restrict what skills they have, they will have little recognition of what they can do, and they can develop new interests and goals. When the youth becomes exposed to these experiences at a later time, it will take a while to formulate a precise idea on what they like and how these ideas will be transformed into goals. The exposure to these opportunities can be an ongoing experience for the youth and can result in the youth changing their current ambition to a brand ambition throughout their transition.

Inclusion involves the type of supports and accommodations that were provided (Stewart et al., 2014). Attitude will follow inclusion because when the professionals and service providers hold a negative attitude towards the youth, they would provide weak support and can diminish the youth's likelihood to be included (Stewart et al., 2014). In addition, this can also impact the youth's willingness to complete their goals and attend various opportunities (Stewart et al., 2014; Carter, Brock, & Trainor, 2014). Based on the attitudes that the professionals and front-line services provides have towards the youth's own abilities, they may provide little to lots of resources or opportunities to build their daily living skills and to obtain employment, education,

or vocation (Davies & Beamish, 2009). When the youth experiences exclusion instead of inclusion, the youth may communicate with their natural supports to attend another program that will allow the youth to reach their potential and fulfill their transition. As the youth and their natural supports find new environments that will promote opportunities for the youth to communicate their needs, to include the youth's AAC, and to support the youth to fulfill their goals. Finding a new environment will result in the transition taking additional time. By having a program that promotes inclusion, the professionals and peers are willing to use AAC to communicate with the youth, this can encourage the youth to complete their goals and continue with the path they are pursuing.

Building capacities are “strengths, and assets that people bring to a situation...[that] include[s] elements of coping, self-determination, motivation, problem-solving, decision making, resilience” (Stewart et al., 2014, p. 2001). By building these capacities, the youth are not only building onto their current strengths, but also recognizing their own abilities and skills (Carter et al., 2014). As the youth with CCN develops their capacities, they are going to be taking risks and participating in environments that challenge and promote their communication abilities and strengths. By creating opportunities and taking risks, the youth is able to build onto their current strengths and current AAC methods to create new means of communicating. As the youth builds their capacities, they are strengthening their own resilience and decision-making skills and finding new ways to become motivated to complete an aspiration based on the risks they took (Stewart et al., 2014). Therefore, building these capacities will take a significant amount of time throughout their transition because these will be built based on the different goals the youth has in each of the domains and some capacities may take a longer time to build than other capacities.

Providing information about transitions has to be provided at the right time and to the right people (Stewart et al., 2014; ACYI, 2008). Service providers and organizations that provide supports and services to youth focus on how the eligibility for supports and services become more difficult to access once they reach adulthood. Policies are trying to help the youth find a place in society during their transition, but it is also a barrier because the policies remove the youth's autonomy by not having the policies be easily accessed and the youth may not understand these policies (Stewart et al., 2014; Osgood et al., 2010). Osgood et al. (2010) suggested the barriers that policies created during the youth's transition to adulthood, includes eligibility, inadequate funding, professionals lacking specific training for youth with Complex Communication Needs, and lack of coordination and communication across services. Planning ahead allows the youth to be prepared for these barriers and gives the natural supports the knowledge that they will be there to provide the youth with emotional support. If the youth is not prepared for this early, they must navigate a system that is more complex and become lost within the system (Osgood et al., 2010) and the youth will experience an unsuccessful and longer transition in the health domain.

Discussion

As long as the youth is able to communicate throughout the planning period of the transition, they have the potential to participate in various opportunities. By participating in various opportunities, they are developing various skills that can be applied in their workplace, education, vocation, housing, and community. The opportunities that are readily available for the youth, will allow the youth to build onto their current capacities and will increase their independence and resilience as they reach adulthood (Stewart et al., 2014). Within the environments of the various opportunities, the youth, natural supports, and individuals within the

environments have the ability to teach each other how to communicate in different means including the use of AAC. In addition, the various opportunities will provide the youth the ability to learn how their AAC will benefit them in specific situations, which stems from the opportunities they were a part of. By having readily available opportunities for the youth with CCN, the opportunities can provide new skills, strengths, and assets that will promote a successful transition.

The inclusion of natural supports during the youth's transition can be beneficial for the youth because the natural supports are providing and assisting the youth with additional resources while the youth transition across the health, education, work, vocation, housing, and community integration domains. Natural supports are providing assistance during the transition because as they provide resources and strategies to increase the youth's ability to participate, ensure that the youth has a voice to discuss the challenges that arose and solutions that can be made (The Change Collective, 2017). However, although natural supports may be providing material and instrumental support, they will continue to provide emotional support as the youth develops their adult identity and voice (The Change Collective, 2017). Throughout the youth's transition period, the natural supports will provide emotional, material, and instrumental support (Walsh & Connelly, 1996), which is critical for the transition to be successful.

With the use of AAC, the youth can achieve their transition goals. However, an obstacle of using AAC is that the youth's communities, peers, co-workers, employers, and professionals who are interacting with the youth do not know how to communicate with the youth's AAC. Communication is essential for the youth, as it allows the youth to express how they are feeling, the goals they want to achieve, what is working and what they want to change (Howery, 2015). When the natural supports have the instructor role, they are able to provide the strategies and

resources to demonstrate how to work with AAC. By addressing the obstacle of limited familiarity of ACC, the youth can achieve their goals, improve their self-worth and personal security, demonstrate their potential that would have been ignored due to the communication gap, and contribute in a meaningful way (Howery, 2015).

The start of a youth's transition to adulthood can be indicated by the youth being dependent on their natural supports. As the youth starts to participate in the opportunities that are related to their own transition goals, the youth may need their natural support to help guide them in the right direction. This allows the youth to complete their own goals because they have been received assistance from their natural support by being their communicator and allowing the youth to develop their independence and find their place in the environment of the opportunities. When the youth is dependent on their natural supports as they provide emotional support during their development of independence, the dependence is still promoting independence, but in a different manner than what is typically expected. With dependence and independence being a non-linear process, it is important to recognize that dependence is an indicator for a successful transition.

A successful transition to adulthood can be indicated by having the youth's basic needs met, being provided with various opportunities, developing their own identity, increasing the youth's independence, having accommodations made based on the youth's strengths and abilities, and providing information in an accessible manner between the youth, natural supports, and professionals (ACYI, 2008; Stewart et al., 2014; Davies & Beamish, 2009; Henninger & Taylor, 2014). These indicators can happen at any point during the youth's transition since the transition has no specific deadline. In addition, the indicators can have different standards on how they look, which will be based on how the youth views that indicator in a specific transition

domain. By having these indicators in mind during the youth transition, can determine how the overall process is going and can lead the youth to address what needs to be changed to move forward.

The transition to adulthood for youth with CCN will look different from typical youth by lasting longer and with no clear deadline on when the transition is complete. Starting early allowing the youth, natural supports, and service providers to find programs that are based on the youth's needs, strengths, abilities, and passions (ACYI, 2008; Adair, 2018; Lowe & Attridge, 2015). In addition, starting early allows the youth and natural supports to address the challenges that could arise (Lowe & Attridge, 2015) and create solutions to decrease the possibility of youth experiencing a halt in their transition due to these challenges. The building of skills and goals will take time due to the obstacles that may prevent the youth from developing their skills and goals. As the youth attends various employment, education, vocation, and community opportunities, the collaboration process between the natural supports, youth, and professionals will take time as they work with the environment to decide how they will incorporate AAC and support the youth to achieve their goals. Collaborating within the youth's support team to determine if the environment will be appropriate will create a longer transition process because the potential environments will need time to determine how they can effectively support the youth and incorporate the youth's AAC. Each environment will take a specific amount of time to determine if the youth will be suitable for the environment this can make the transition process vary in time.

The four key findings (communication being key to the transition, natural supports must be included, independence and dependence being non-linear, and the transition having no clear timeline) reflect the idea of how complex the transition process is, since each of the findings will

either influence each other to provide a solution or be the cause of why the transition has a longer timeline. Transitions last longer due to the youth having little communication during the planning process which limits the number of opportunities they can participate in. As the youth have the opportunities to contribute during the planning process will influence what roles the natural supports have during the transition. Simultaneously, natural supports are working with the youth to create more opportunities to communicate more during the transition process. YTA is defined as the youth having independence. However, for youth with CCN the independence may look different because they may rely on their natural support and their communication devices to have a voice during the transition and the opportunities that were created, but the youth is still independent. By recognizing that each of the four key findings will significantly impact the youth's transition period reflects the idea that youth with CCN have a complex transition and that this transition process has a high priority and importance to the youth and families.

Considerations

Information Sharing and Communication with Youth

As the youth successfully transitions into adulthood, the youth will have to share information across the three domains. By sharing information to the peers who are developing a relationship with the youth and willing to get know the youth in a specific transition domain, will allow the peers to develop a greater understanding of the youth and the youth can develop a sense of inclusion. In the work, vocation, and education domain, for an employer to find ways to better support the youth, the information will come from the discussions between the youth and the employer, where the youth would share relevant information from the other domains to their employer. Sharing information from the health domain will involve the youth to understand what

should to be discussed in their housing, community, work, vocation, or education environment, so that their peers are aware of what they can do to support the youth in a health crisis. In the housing domain, the youth can share information with their roommates on what their schedule is when it comes to health appointments, their work, vocation, or education. Sharing information with the youth allows the youth to successfully transition in any domain, by being able to distinguish what information is important and how the information they share will impact the youth's overall well-being in each of the domains.

Information sharing between the domains needs to support the youth's transition as well. The youth's work, education, vocation, home, community, and health providers can learn from each other's adaptations to the youth's AAC and increase the effectiveness of communication with the youth and their natural supports. As the information is being shared between the domains, the providers are able to provide effective support to the youth, the support will aid the youth to reach their transition goals and encourage long-term success within each of the domains. By having information shared between the domains, the information will allow the providers to acknowledge new ways that will support the youth's own communication styles and growth within each of their domains.

Natural Supports

Natural support should be included in the youth's environment, until the youth has voiced that they are confident enough to be on their own. However, to have the natural supports in the environment is not always feasible, due to the natural support time restrictions, and the environment does not have enough resources to accommodate the natural supports. By having the natural supports involved in the environment, the natural supports will take the lead to

support the youth when there is a high youth to professional ratio or employer to employee ratio. Overall, by having the natural supports in the environment, the youth can learn the rules and expectations quicker because the natural supports are communicating to the youth in a manner that makes sense to the youth (Jalongo & Dragich, 2008). As the youth becomes confident in themselves and feel that they can do the work independently, the natural supports can remove themselves from the environment, but still be there when the youth needs them to provide the emotional support.

The youth and their natural supports can work with professionals to encourage risk taking to implement AAC. Taking risks allow the youth to have a range of AAC be implemented into many settings. The natural support will then work with the youth to decide how these risks are going to impact the youth's ability to communicate and still meet their goals. The natural supports in the youth's future environments may not have the proper expertise or education background on the types of AAC and can inhibit them from having a voice during the risk-taking process. However, since natural supports know the youth best, they still have a greater understanding on the youth communication patterns. Having the natural supports part of the taking risks process and seeing how AAC would promotes the youth's ability to communicate independently will encourage the youth to participate in a variety of opportunities in their workplace or education program.

To implement natural supports, service providers, families, and youth, need to collaborate to create a plan to see how and why natural supports should be involved throughout the transition period. To develop a plan, the plan needs to address the youth's goals in each transition domains, the youth's general interests, needs, and information about themselves that would like to others to know about (Paul V. Sherlock Center, 2001). The plan will then look at who the youth's

natural supports are, what role the natural supports has for the youth, and what purpose they have during the youth transition. By collaborating, the service providers, youth, and families can create a plan on what the inclusion of the natural supports would look like throughout the youth's transition. The plan will have a greater description on, how the natural supports will help the youth's complete their transition goals, how they can help the youth address the challenges and problems that can arise and how to aid in the process of creating that effective transition (The Change Collective, 2017). As the service providers collaborate with the youth and family to discuss the role of the natural support, the plan will also address if the natural supports are the youth's "primary natural communicator" (Fisher & Shogren, 2012, p. 25). The development of this plan will occur during the planning period of the youth's transition, so that the natural supports can be incorporated early to help the youth develop and complete their goals as they go through their transition.

Work, Education, Vocation

As the youth with CCN transitions into the domains of work, education, and vocation domain, the best practice would involve the participation model to conduct environmental scans to see if the youth with CCN has the ability to communicate and promote their own abilities (Howery, 2015). Howery (2015) proposed that the participation model identifies both the youth with CCN and their peers "communication patterns and interactions, Evaluation the effectiveness of the...[youth] with CCN relative to...youth in the same situations/environments, Identification of the barriers that will limit the participation of the... [youth]" (p. 43). By focusing on using the participation model while including the youth's individualized and strength-based plan, a checklist can be created to ensure that the environment is meeting their needs.

To use the participation model would involve the natural supports working with the youth to decide what they should look for in an environment the youth wishes to part of. To decide this information will be based on the knowledge that the natural supports and youth have on that environment and the youth's interests. Using that information, the natural supports will work with the youth to see if the environment matches the youth's criteria. If the environment is presenting some barriers that prevent the youth from being able to communicate, the natural support can then step in and provide assistance until the youth's communication abilities has been incorporated. When the natural supports steps in to implement the checklist with the youth, the youth has a greater opportunity to succeed in the environment, if the environment fulfill the checklist criteria that the natural support and youth made. To further the youth success, the youth and their natural support can create an instruction sheet on how to help the youth succeed in the environment.

In the workplace, education, and vocation environments, the employees, managers, professors, teaching assistance, and students, would use the participation model during the initial discussion between the youth, their natural supports, and service providers, to develop an understanding of what the current setting looks like and how to support the youth. Through collaborative discussion, the work, education, and vocation environments can develop an understanding on how the youth can display their skills, abilities, and communication patterns. Based on the conversations that are held, these environments can use the checklists that the youth, natural supports, and service providers made, to see how they can further support the youth. The workplace and environment need to use this checklist to see how the youth is doing in the environment and what they can do to support them.

Housing, Income, Community Integration

For successful housing to be facilitated, the youth must have the exposure and opportunities to discuss what their own future housing would look like, whether that includes the living independently, living at home, living with another family, supervised group living (Lowe & Attridge, 2015). Depending on the youth's goals and vision they had for their housing, the housing can include, their natural supports, supportive roommates, or care workers that come in and assist in their independent living (Lowe & Attridge, 2015; McNaughton, et al., 2012). Successful housing will also consist of youth having the ability to obtain the resources they need to successfully live independently and maintain their own health, personal safety and daily living skills. Depending on what the youth's needs and goals are for their housing will be based on if they need to include roommates, care workers, and/or natural supports in the environment. In addition to determine who will be included in the living arrangement, the youth will need to have a discussion and ensuring that the living arrangement is willingly to incorporate the AAC that works best for the youth.

To have successful housing and community integration, the natural support continues to facilitate conversations that allow the youth to express what their housing and community integration would look like. AAC must be implemented in their community and housing, to provide a wide variety of opportunities to communicate. The youth's AAC could have a different role when addressing their health, personal safety, and daily living skills. By having the various AAC's implemented in the settings, the youth can develop independence in their housing and community because the youth has the ability to advocate and share the appropriate information using their AAC. In addition to having the AAC be implemented and easily accessed within the youth's community and house will allow the youth to develop their independent living skills and

additional skills that will allow them to, “negotiate their care, give constructive feedback, and deal with conflicts” (Collier & Self, 2010, cited in McNaughton, et al., 2012, p. 46). Having various AAC can allow the youth to feel confident, safe, and have the to opportunities to live independently and become part of a community.

Health

For a youth with CCN to successfully transition in the health domain, a toolkit can provide a pathway to do so. The toolkit will reflect an understanding on what AAC works best for the youth. In addition, the toolkit will also include how the youth understands their own health, this is key because the youth with CCN can then advocate for their health. The toolkit will allow health professionals to understand why the youth is advocating that they are feeling uncertain about their health because the toolkit describes what the youth’s typical health would look like. The toolkit also provides an opportunity for health care professionals to acquire a better understanding of the youth’s communication abilities and how the AAC can have a role in the discussion of health.

As the natural supports, youth, families, and pediatric healthcare providers search for an adult health service provider, the family empowerment model ensures that the health services that the youth attends will match their own health needs and encourage the use of AAC (Ungar, Liebenberg, Landry, & Ikeda, 2012). The natural supports, youth, and professionals will create a resource to assist and encourage the youth to self-advocate their health using AAC as they independently interact with the healthcare professional. To have that successful transition, the empowerment model, allows the youth to communicate and integrate their understanding of the own health needs into a new setting.

In the adult health care settings, should have a variety of different forms of AAC be readily available for the youth to use. By having the setting have the AAC readily available will promote a sense of inclusion, because the youth can feel comfortable, feel like their voice will be heard, and they can advocate for their health. With youth with CCN there is a range on what is their communication level is, therefore, by providing various AAC methods within the health setting, the AAC method should be applicable for many youths with CCN. However, this may not be applicable because for youth with CCN there is variability on how each method of AAC works for different youth. Therefore, the adult health services will only provide generic forms of AAC in the environment. The AAC that is made available in the environment may not work for specific groups of youth due the youth's communication style. The adult health services can implement various means of AAC in the setting, but specific youth will be limited from using them and other will benefit from them.

Conclusion

For youth with CCN that are transitioning to adulthood, it is important not to create a transition plan that has the little involvement of the youth themselves. A successful transition then, includes: collaboration between providers, natural supports and the youth; involvement of natural support during the transition; and various opportunities to peruse an education, employment, or housing that will match and fulfill the youth's goals (Davies & Beamish, 2009).

By including natural supports during the transition, the natural supports can facilitate discussions with the youth and the individuals that will be in contact with the youth to create a meaningful experience in their education, work, vocation, community integration, housing settings. The youth can also navigate their way through the complex health care policies. Natural

supports are important for the youth with CCN because there is a key emphasis on the communication aspect and how to effectively implement the youth's AAC methods in these settings and to ensure that they are able to communicate back when it comes to complex issues or have conversations with peers in the environment. When the natural support is not involved during the youth's transition, the youth may experience limited opportunities to experience a successful transition because, they had limited opportunities to fully communicate their own knowledge and capabilities. For youth with CCN to successful transition to adulthood, the youth and natural supports will be there to assist the youth in environments to ensure the goals are met and they feel confident and included.

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