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Efficacy of the Project Futures Self-Determination Coaching Model for College Students with Foster Care Backgrounds and Mental Health Challenges

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1. Introduction

Despite high aspirations to succeed in postsecondary education, research indicates that young people with foster care histories are less likely than their peers to enroll or succeed in college (Courtney et al., 2010; Geiger & Beltran, 2017a). In the US, only 30% of former foster youth enroll in college by age 21, compared to 53% of the general population (Courtney et al., 2007). Similarly, college retention rates are comparatively low; foster students have a comparatively high dropout rate (28-34%) compared to similar low-income first-generation students (12-18%: Day et al., 2011; Okpych & Courtney, 2018). Historically, the rate of degree-completion for foster youth varies between 3-11%, compared to about 24% for non-foster youth (Courtney et al., 2010; Day et al., 2011; Pecora et al., 2006; Wolanin, 2005). More recent studies demonstrate that less than half of foster youth persist in the first year of college, compared to almost three-quarters of their peers (Okpych & Courtney, 2018a), and compared to their low-income, first-generation peers, students with foster care histories were less likely to have graduated from a 4-year institution, and those that did graduate took longer than their non-foster youth peers (Day et al, 2021). Internationally, transition-age young people in out-of-home care have similarly limited higher educational outcomes (McNamara, Monserrat, & Wise, 2019; Mendes & Snow, 2016; Jackson & Cameron, 2012), underscoring this population as an important subgroup for intervention, especially considering the broad impact of higher education on future economic stability (e.g., Salazar, 2013).

Research suggests that foster youth's higher rate of academic attrition may stem from a lack of connection to helpful adults and instrumental supports when experiencing educational challenges in high school and college (Day, Dworsky, Fogarty, & Damashek, 2011; Day et al, 2012; Jackson & Cameron, 2011; Morton, 2015, Rios & Rocco, 2014). Studies show that adult

support, including from teachers, has a particularly strong impact on foster youth's intent to finish high school, including at least one caring adult who was invested in their academics, along with teachers who are aware of their particular challenges (Brady & Gilligan, 2020; Clemens et al, 2017; Day et al, 2012; Wilson, Harvey, & Mendes, 2019). Similarly, ongoing support from the child welfare system in the form of extended foster care for youth over age 18 predicts post-secondary enrollment, among a range of other positive outcomes (Courtney & Hook, 2017; Courtney, Okpych & Park, 2021; Okpych & Courtney, 2017; Salazar, Horn, & Cleveland, 2020). Further, Dworsky and Perez (2010) found that the most important college supports these students cite include being part of a community where they feel understood and have someone to turn to for help; indeed, studies have shown that the first people students with foster care history turned to for support were college program staff (Kinarsky, 2017).

Difficulties in college are further exacerbated by mental health conditions and untreated mental health stress that are more prevalent for young people with foster care histories, including depression, anxiety, PTSD, and substance abuse (Havlicek, Garcia, & Smith, 2013; Keller, Salazar, & Courtney, 2010; White, O'Brien, Pecora, & Buher, 2015). Research has also found that past traumatic events can have a negative effect on attachment patterns and personal relationships as former foster youth approach and move through post-secondary education, and these avoidant attachment styles may lead to lower rates of degree attainment, having a significant impact on their ability to connect with supportive adults (including college support program staff and point people) in these new environments (Morton, 2018; Okpych & Courtney, 2018b). Importantly, untreated mental health issues and stress can lead to dropping out or disengaging from academics (Day et al, 2012).

Further, even as students become connected to academic support systems, struggles can

persist. Students continue to identify a lack of stable housing and finances, in terms having enough money to pay for tuition, room/board, and other expenses, and report more difficulty with the rigor of college coursework and overall preparedness compared to their peers, including needing to complete remedial college courses (Courtney et al., 2009, Day et al., 2011, Geiger & Beltran, 2017b, Root, Unrau & Kyles, 2016, Merdinger et al., 2005, Salazar, 2012). Similarly, Okpych and colleagues (2017) show that only 33% of foster students reported having a high level of training and/or support that prepared them for college or the workforce, and Unrau and colleagues (2017) specifically found that foster youth have lower entrance exam scores and GPA as their first-generation counterparts. Thus, these students enter post-secondary programs facing exceptional academic and financial struggles, as well as mental health challenges above and beyond what is typical for college students.

1.1 Campus-based programming for students who were in foster care

Some post-secondary institutions have responded to the range of needs experienced by this population by developing specialized campus-based programs. An earlier review of such college support programs identified unmet needs related to distinct areas—including academic preparation, housing, financial assistance, and mental health challenges—and clarified the importance of these supports, including college outreach programs and access to health and mental health providers (Hernandez and Naccarato, 2010). More recent studies have narrowed in on well-being as it relates to college success among students with foster care histories, by addressing the need for informal support, addressing difficulty with academic expectations, and supporting mental health issues (Geiger et al., 2018), although few related support programs have been formally evaluated (Dworsky & Perez, 2010, Geiger and Beltran, 2017b, Randolph & Thompson, 2017; Watt et al., 2013). Students themselves stress the importance of having

specialized campus programming (Cantu, 2013), and in a recent study by Unrau (2017), nearly all (95%) of students reported feeling more than satisfied with their experiences with a campus program for former foster youth, with the most important supports being housing, financial support, and individual coaching, and with most citing this program as the reason they were able to reach graduation. Another recent study found that federally-funded Education and Training Vouchers (ETV) and college support programs play an important role in helping foster youth in college, such that participants were twice as likely to persist with the help of the support program compared to those that did not participate, warranting more rigorous evaluation and identification of common program components (Okpych et al, 2020).

Most studies recommend a mixture of tangible and intangible supports be offered to foster care populations both before they enter college or university, and throughout their enrollment. Critical tangible supports include academic help like tutoring or skills training, housing and financial coaching, and employment or career supports (Batsche et al., 2014, Day et al., 2011, Pecora, 2012, Pecora et al., 2006, Salazar, 2012, Shin, 2003). Intangible supports include social and collegial environment support, and community connections or extracurriculars (Day et al., 2011, Jones, 2011, Merdinger et al., 2005, Shin, 2003). Receipt of such tangible and intangible support specifically from someone who had experience in college increased the likelihood of enrollment (Okpych & Courtney, 2017). A scoping review of the literature looking at the characteristics, services, and challenges of college programs for foster care alumni found that most offered resources and information, career exploration, and financial support, although only half of the programs had connections to academic support and counseling (Geiger & Beltran, 2017b).

It has been argued that foster youth undergraduates have wide-ranging needs that can

only be addressed through well-crafted programming and individualized support services addressing a range of needs (Kinarsky, 2017). However, as Dworsky and Perez (2010) and Salazar et al (2016) highlight, existing programs have not been rigorously tested, they vary widely from institution to institution, and often use selective or biased recruitment and outreach procedures in evaluation, contributing to the need for more rigorous outcome and effectiveness studies (Geiger & Beltran, 2017b; Randolph & Thompson, 2017). Additionally, these programs may be underfunded, only funded in the short term, or suffer from lack of resources that adequately support participants without ongoing fundraising effort (Piel et al, 2019). The current study reports findings from a pilot intervention efficacy study for a model called Project Futures, which used one-on-one coaching around self-determination skills to help undergraduates with identified mental health stressors to increase self-efficacy and skills around managing college challenges related to mental health, academics, and other inhibitors of college success.

1.2 Foundations of the Current Intervention Model

This study evaluates a self-determination coaching model to increase postsecondary engagement and success among enrolled college students with foster care histories and mental health challenges. In this context, the expression of post-secondary student self-determination would include the setting of academic and career goals, problem-solving solutions to barriers, reaching out to build supportive relationships and access services, and using self-care strategies. Self-determination interventions for young people in foster care with mental health challenges have been shown to increase self-determination and higher education planning and participation, as well as having a positive impact on other important areas of adult life, such as mental health empowerment, community engagement and overall quality of life (Geenen et al., 2013; Geenen et al., 2014; Powers et al., 2012). Self-determination enhancement also has been shown to

mediate improvement in facets of quality of life, including connections with others, social inclusion, and community integration (Powers et al., 2012). Further, support from a young adult with shared lived experience (e.g., foster care history, mental health challenges, in college) also can be powerful in facilitating self-determination (Geenen et al., 2014).

The current study pilot tests an intervention model that draws upon prior validation of an approach for increasing the postsecondary enrollment of high-school students in foster care with mental health conditions, known as *Better Futures* (Geenen, Powers, Phillips, et al. 2014; Phillips, Powers, Geenen et al., 2015). *Better Futures* was tested with 67 high-school seniors in foster care with mental health challenges and an interest in post-secondary education. The model focused on increasing self-determination around post-secondary goals through a 4-day on-campus Summer Institute, one-on-one coaching twice a month for the academic year, and a series of workshops throughout the year. The coaching approach was itself adapted from earlier work demonstrating the efficacy of foster youth coaching based on a structured set of skills around goal achievement, partnership with adult allies, and self-regulation (Powers, et al., 2012; Geenen, et al., 2013). *Better Futures* adapted these skills to focus on post-secondary preparation, and coaching was provided by “near-peers” who were current undergraduate or graduate students with shared lived experience of foster care and/or mental health system involvement, based on emergent findings in the mental health field around using peer support to increase the engagement of young people in programming (e.g., Davidson & Guy, 2012; Gopalan, et al. 2017; Kim, Munson, & McKay, 2012; Munson et al., 2016). Compared to the control group, foster youth randomized to the *Better Futures* intervention showed significant gains at 6-months post-intervention on measures of self-determination, post-secondary participation and preparation, hope, and mental health empowerment (Geenen et al., 2014; Phillips et al., 2015).

For the current study we tested the self-determination and post-secondary skills curriculum with young people with foster care histories and mental health challenges who were already enrolled in the first two years of college to evaluate the adapted model's impact on self-determination, self-efficacy, and post-secondary success and retention.

1.3. Intervention Overview

The Project Futures intervention is informed by the literature, and elements validated through and adapted from our previous Better Futures study. Model design was further guided by focus groups and individual discussions with 20 young adults in foster care with mental health challenges who were currently enrolled or recently withdrew from college, as well as consultation with an advisory board representing existing post-secondary programs for foster youth and related youth leadership, advocacy, and service organizations.

1.3.1. Individual Near-Peer Coaching. In the Futures model, participants receive near-peer coaching from an upper-division undergraduate or graduate student who has lived experience with foster care and/or mental health challenges. Young adults are asked to participate in bimonthly coaching, which begins a few weeks prior to the start of the academic year and continues through the nine-month academic calendar. Coaching is typically provided twice monthly and meetings are timed to avoid conflicts (e.g., final exams) and to support participants during important periods (e.g., holiday-related stress). Participants are supported to identify and pursue short-term goals related to engaging and succeeding in higher education, which often includes non-academic domains like mental health and housing. Coaching includes relationship support (e.g., consistent, accepting, transparent), supported practice of self-determination skills (e.g., problem-solving, negotiation, finding allies), and experiential activities (e.g., sign up for tutoring, do an informational interview).

1.3.2. Support and Engagement Workshops. Opportunities for group networking, support, and engagement are facilitated through three academic year workshops offered across winter and spring terms and organized with the active involvement of participants. These 2 to 3-hour workshops feature didactic and experiential activities aligned with the self-determination skills and post-secondary experiences in the model (e.g., sharing of progress and problem-solving on goals, meeting with a Campus Champion, or visiting a campus program or student organization). Each workshop also includes time for informal networking and a group recreational activity (e.g., bowling at the student union).

1.3.3. Campus Champions. Participants' academic engagement and success requires a supportive campus community that understands and helps to identify student goals and needs. Thus, the model includes organizing a team of "Campus Champions" who are key administrative and faculty representatives from various academic departments and student support units, including Advising, Housing and Residence Services, Financial Aid, the Multicultural Student Center, the Student Health and Counseling Center, the Disability Resource Center, and Women's and Queer Resource Centers. Champions participate as presenters in Futures workshops, and are available to address student questions and to help them navigate the complexities of campus structure, services, and policies. Champions attend a brief orientation around key issues affecting first-year students with foster care and mental health challenges and potential scenarios for student support requests, followed by periodic program check-ins during the academic year.

2. Methods

2.1. Sample

The study reports data from the Project Futures (or "Futures") pilot intervention efficacy study, which was conducted between 2015-2019 at Portland State University (PSU) in Portland,

OR. All study procedures were approved by the PSU Institutional Review Board (IRB protocol #15313, approved 3/22/2015) and the Oregon Department of Human Services external research review committee (research application #193, approved 6/30/2015). The Futures intervention is an adaptation of the evidence-supported My Life (Geenen et al., 2013; Powers et al., 2012) and Better Futures (Geenen et al., 2015; Phillips et al., 2015) models to increase self-determination, and was delivered through bi-weekly coaching by trained near-peer undergraduate/graduate students with similar lived experience in foster care and/or with mental health challenges. Eligible students were aged 18-26, enrolled in the first two years of college, and had prior or current experience in foster care and self-identified mental health challenges. Table 1 shows sample descriptive statistics. Note that attrition analyses indicated that students with missing data were more likely to be in the control group.

---insert Table 1 ---

2.2. Recruitment

We recruited sixty-five young adults who were attending the university hosting the study as well as two local community colleges. The state child welfare agency provided a list of eligible young people ages 18-20 who were receiving child welfare services, and we contacted caseworkers to identify those enrolled in college and to get youth contact information so we could recruit them for the study. Young people who were no longer in foster care (e.g., over age 20) were also eligible for study participation, and additional recruitment methods included outreach to local Independent Living Programs (ILPs) serving foster youth as old as 23, as well as campus programs potentially serving eligible students (e.g., programs for first-generation students), and a university-provided list of students who had indicated foster care history in their application materials. Due to recruitment challenges (discussed in 4.1. Limitations), the first and

last annual cohorts of the 4-year implementation period did not have enough students to randomly assign to intervention and control groups, and these youth were therefore assigned as a group to the intervention (year 1) or comparison group (year 4). Therefore, although 65 eligible young adults were recruited for this 4-year project, this paper reports findings for the subgroup of 35 students who were randomized to either the intervention or control group in years 2 and 3.

2.3. Procedure

Project Futures was implemented as an on-campus program serving the university and two local community colleges. Coaches were undergraduate (juniors or seniors) and graduate students at the university who we recruited through flyers and internship fairs to identify current students with lived experience in foster care and/or with mental health challenges. Coaches attended a 4-day training around barriers to post-secondary success for students with foster care and mental health challenges, and the self-determination skills curriculum and post-secondary experiences comprising Futures model fidelity (see Table 2). These include 10 self-determination skills drawn from prior studies (Geenen et al., 2013, Powers et al., 2012) and 8 post-secondary activities for academic support and career exploration that are integrated into coaching over the course of the year. Coaches received weekly supervision from a model-certified supervisor to ensure fidelity to the coaching model. Note that there was no coach turnover within any of the cohorts, but in some cases there was “co-coaching” where a more experienced coach was paired with a newer coach. Participants were expected to receive at least one hour of coaching every other week for the academic year, or about two meetings a month and 18 hours of coaching overall. Coaching time for the sample reported here was an average of 9.63 in-person meetings (min = 3, max = 10) and an average of 109.23 (SD=27.89) minutes coaching contact per month (in person or by phone/text/email), for an average total of 17.53 hours coaching time per

participant (min = 3.16, max = 32.98).

Three workshops were offered throughout the year on relevant topics (e.g., Financial Aid, Mental Health & Self-Care), and youth were asked to attend at least two, although this was not required for model fidelity. Lastly, we recruited Campus Champions across the university and community colleges; these faculty and staff members attended a 2-hour orientation to the challenges these students might experience, and were maintained through a listserv and a website accessible to students, who were encouraged to contact a relevant Champion(s) for assistance.

---insert Table 2 about here---

2.4. Measures

Participants completed paper-and-pencil surveys at baseline before coaching began in the fall, at post-intervention in the spring (9 months later), and at 6 months post-intervention (15 months post-baseline). Participants completed assessments on campus or at community locations that were convenient to students, and they received a \$40 incentive for each assessment to thank them for their time. Measures are detailed below.

The *AIR Self-Determination Scale* (Wolman, Campeau, Dubois, et al., 1994) assesses individual aptitude and opportunity for exercising self-determination. The scale was field tested in more than 70 schools in several states. Wolman et al. (1994) conducted an alternate-item correlation for item consistency, which was found to range from .91 to .98. Split-half reliability was .95. Test-retest correlations (3 months) were .74. Reliability in the current sample is .865, .910, and .918 at the three assessment time points, respectively.

The *Self-determination Score* is a 5-item project-specific measure with four response options (almost all of the time; most of the time; sometimes; not usually) and has these items: *I can accomplish the goals I set for myself; I can solve problems that get in the way of my goals; I*

can keep other people's discouragement from making me give up; I can keep myself from being overwhelmed by stressful situations; I can get adults to help and support me with my goals.

Reliability in the current sample is .800, .822, and .804 at the three time points, respectively.

The 25-item *Career Decision Self-Efficacy-Short Form* (Betz, Klein, & Taylor, 1996) measures belief that one can complete tasks necessary to achieve career and educational goals. Given the focus on the transition to adulthood and the theoretical underpinnings of the study, this measure was included to investigate participants' specific development of career-related self-efficacy beliefs. All five scales in the short form have acceptable coefficient alpha values ranging from .73 (self-appraisal) to .83 (goal selection) (Betz, Klein, & Taylor, 1996). Reliability in the current sample is .937, .939, and .943 at the three assessment time points, respectively.

The measure of *Career Goals Exploration* is an 8-point project-specific index of career exploration activities, including: *had regular contact with someone in that career area; talked to family members about my career interests; job shadowed someone in my career area; take a career interest test; had an informational interview with someone about their career; had a career mentor; gathered information about a job and its requirements from the internet or books; and other activity.* See Table 2 for means at each time point.

The *Youth Efficacy/Empowerment-Mental Health* (Walker, Thorne, & Powers, 2007) is a 23-item measure assessing youth perceptions of efficacy around how young people manage their emotions and mental health (the Self subscale), manage services (the Service subscale), and help change or improve systems (the System subscale). Response options are *always or almost always, mostly, sometimes, rarely, and never or almost never.* The three subscales have good reliability ranging from .83 to .88 (Walker, Thorne, & Powers, 2007). Reliability in the current sample is .852, .843, and .923 at the three assessment time points, respectively.

Academic outcomes included ongoing post-secondary enrollment and self-reported grade point average (GPA). These outcomes were self-reported, but during the assessment, participants were asked to look up their current GPA on their institution's online portal.

2.5. Data Analysis

We conducted all analyses using SPSS, Version 25. Twelve (34%) participants had missing data on at least one of the variables, excluding GPA, which was most commonly missing at each assessment time point (51%, 43%, and 37% respectively); this was most commonly missing because participants did not know their GPA or had trouble logging into their account to look it up. We began our analyses by assessing the data from the continuous outcome variables for normality by treatment group at baseline, post-intervention and follow-up; the data for *career goals exploration* was the only variable not normally distributed and we used a Mann-Whitney U test for all related analyses. We tested for baseline equivalency using independent samples *t*-tests and Mann-Whitney U tests and found no significant differences on the outcome measures by treatment group (see Table 3; Cohen et al., 2003). We examined the intervention effect at post-intervention and follow-up by testing the bivariate relationships between the outcome variables and treatment condition using independent samples *t*-tests, Mann-Whitney U, and Fishers exact tests as appropriate (Cohen et al., 2003). We hypothesized that the intervention effect would favor the treatment group (i.e. $\bar{x}_{Tx} > \bar{x}_c$) and thus one-tailed tests were used to assess treatment effects (Ruxton & Neuhaeuser, 2010). We assessed the clinical significance of significant effects using Cohen's *d* effect sizes and *r* as appropriate (Cohen et al., 2003).

3. Results

Table 3 presents the results of the bivariate comparisons of youth outcomes by treatment group at post-intervention and follow-up.

There was no significant treatment effect for the AIR Self-Determination Scale at time 2 ($t_{21} = -.840, p = .206$) or time 3 ($t_{27} = -.942, p = .178$). There was a significant treatment effect with a large effect size for the for the 5-item self-determination scale at post-intervention ($t_{21} = -3.764, p = .001, d = 1.66$) and follow-up ($t_{21} = -2.055, p = .027, d = 0.85$).

The Career Decision Self-Efficacy (CDSE) scale had a significant treatment effect and large effect size at post-intervention ($t_{21} = -2.173, p = .021, d = 0.89$), however at follow-up the mean value for the treatment group was no longer significantly greater than the mean value for the control group ($t_{27} = -1.389, p = .088$). The career goals exploration index had a significant effect favoring the treatment group with a medium effect size at post-intervention ($U = 28, p = .015, r = .499$) and a small to medium effect size at follow-up ($U = 63, p = .035, r = .347$).

There was a significant effect favoring the treatment group with a large effect size on the Youth Efficacy & Empowerment Survey Mental Health (YES-MH) scale at post-intervention ($t_{21} = -2.212, p = .019, d = 0.91$) but not at follow-up ($t_{18} = -1.731, p = .051$).

There was no significant treatment effect for grade point average at post-intervention ($t_{20} = -2.073, p = .026, d = 0.93$), however at follow-up there was a significant treatment effect for GPA with a large effect size ($t_{18} = -1.159, p = .131$). All students from both groups were still enrolled in college or vocational programs at post-intervention, preventing comparison of group differences. However, the relative proportions of students in the treatment and control groups who were enrolled in college or vocational programs at follow-up are not independent of each other at $p < .05$ ($\chi^2_{(1)} = 3.027, p = .099$), with 93% of the intervention group still enrolled in a program the following fall, compared to 67% of the control group.

---insert Table 3 about here---

4. Discussion

This study tested the efficacy of an intervention designed for post-secondary students with foster care backgrounds and self-identified mental health stressors. Overall, though this was a small pilot RCT, analysis showed evidence of intervention impact on important targeted outcomes, with more consistent findings for project-specific measures compared to validated scales. First, analyses identified a consistent and large intervention effect on the project-specific measure of self-determination; however, there was no evidence of a relationship between treatment condition and the validated AIR self-determination survey. The findings were clearer for validated measures of career-specific and mental health-related self-efficacy at post-intervention, although the intervention effect was not sustained at follow-up. On the other hand, there was a consistent finding for an intervention-specific index of career exploration activities. Lastly, there are no differences in participant-reported academic outcomes at post-intervention, which would have been the end of spring term (in fact all participants were still enrolled). However, there was a difference on both career exploration and academic outcomes the following fall term, suggesting that the intervention helped students manage challenges to maintaining ongoing enrollment that emerge over the summer.

The present findings further validate the efficacy of increasing foster youth self-determination as a mechanism to broadly support transition-related goals. Similar to the Better Futures model from which the present model was adapted, which focused on increasing enrollment of secondary students with mental health challenges in post-secondary education (Geenen, Powers, Phillips, et al. 2015; Phillips, Powers, Geenen et al., 2015), Project Futures was implemented using near-peers, or foster care or mental health system alumni who were further along in college, as coaches. Similar to Better Futures, this model also demonstrated

efficacy with measures of self-determination and mental health efficacy and empowerment, as well as career-related self-efficacy (Geenen et al., 2014). These findings also echo the original application of the self-determination coaching model, called *My Life*, which used staff coaches and had a broader focus on foster youth transition goals; a series of prior studies showed that the coaching approach demonstrated similar effectiveness for self-determination and self-efficacy outcomes, among others (Blakeslee et al., 2020; Geenen et al., 2013; Powers et al., 2010). Thus, our findings further confirm that the self-determination coaching model itself can be adapted and maintain effectiveness for impacting targeted mechanisms. However, this application, with enrolled undergraduates experiencing mental health stressors, also demonstrated the efficacy on the important targeted outcome of college retention, in addition to findings for career-related self-efficacy and exploration beyond what has been previously found.

The present intervention incorporates features from other studies of foster student campus support programs, which share similar challenges in supporting the retention and graduation of these students (Dworsky & Perez, 2010). Our findings reflecting a positive impact of self-determination coaching on a range of outcomes resonate with studies describing the role of foster youth campus programming in increasing knowledge and self-confidence in regards to using on-campus supports like the college website, advising, and tutoring (Geiger et al., 2018). It also echoes studies showing a clear link between the value students placed on having and utilizing a campus-based coach that understands their foster care background and related challenges, especially in regards to helpfulness in post-secondary retention, and ultimately graduation (Unrau, 2017). On the other hand, the intervention finding for an increase in both career self-efficacy and in career exploration activities echoes a Guardian Scholars study by Kinarsky (2017) that found specific foster youth mentorship and programming around career confidence

increased student engagement in career preparation and connections to employment.

Our findings of increased mental health self-efficacy and empowerment also underscore the importance of having well-being and mental health supports as a foundation of foster student programming, as argued by Geiger and colleagues (2018). Further, Hogan (2018) found that foster youth who struggled significantly with mental health issues had worse academic outcomes, which was a need the current study addressed through self-determination coaching around setting goals for self-care and mental health maintenance. From the Project Futures student participant perspective, mental health maintenance would have been presented through coaching as being a facilitator of academic success and overall well-being. Students would have been encouraged to recognize and address mental health needs before they became overwhelming, and coaches would have facilitated service access when possible (e.g., accompanying the student to the counseling center to make an appointment) and encouraged informal support seeking. Knowing that mental health is a specific challenge for these students, and that not all campus-based programs can include clinical support (e.g., Geiger and Beltran, 2017b, found that only half of the reviewed programs offer counseling support), a more feasible approach for some programs may be to focus on setting goals around mental health and increasing self-determination in terms of mental health self-efficacy and empowerment. Elements of self-determination coaching around emotional regulation and addressing mental health needs likely contributed to the intervention impact on efficacy and empowerment related to mental health, and may also be reflected in the observed intervention effect on college retention at follow-up, if coaching helped some students to manage stressors that could contribute to the likelihood of dropping out of college.

Overall, this intervention efficacy study echoes these and other qualitative findings (e.g.,

Miller, Blakeslee, & Ison, 2020; Kinarsky, 2017; Salazar et al., 2016) describing the need for flexible programming that meets the multidimensional needs of these students, and that is delivered with sensitivity around past experiences of foster care and trauma, as well as unique academic challenges and other life stressors. Our coaches were trained and closely supervised by staff who were certified in the self-determination model and who had lived experience of foster care and/or mental health system involvement themselves; further, Campus Champions who would potentially only have brief contact with program participants received some training around common challenges these students may have experienced. Although this model used a structured skills curriculum, the coaching itself is individualized to student-driven goals for academic engagement and success.

4.1. Limitations

Our primary limitation is our small sample size, which was due to enrollment challenges related to an overestimation of how many students would be in the eligibility pool. These early recruitment challenges impacted the timing of the recruitment of annual cohorts and our ability to randomize within each cohort to equivalent intervention and control groups. Therefore, our RCT subsample (of 35 randomized participants from the second and third cohort years) is part of a larger quasi-experimental sample including all cohorts ($N=65$), and thus we are likely underpowered to detect small-to-medium intervention effects at follow-up. Relatedly, given the small sample size, our missing data for self-reported GPA is more concerning, and these findings should therefore be viewed with some caution. Future studies measuring academic enrollment and performance should consider including administrative data for such outcomes, to reduce the incidence of missing data and improve the objectivity of the academic measures.

A second challenge related to two aspects of the model which were based on prior work

with high-school age students in foster care, rather than college students. First, workshop attendance was minimal, compared to prior projects with high-schoolers, which used topical workshops co-facilitated by near-peer mentors to encourage group cohesion and commitment to shared academic goals. Our participants were less interested in attending workshops due to competing priorities and the limited appeal of information not directly relevant to them at that time, and this may or may not have impacted our findings. Relatedly, we had challenges using upper-division undergraduates (juniors or seniors) as coaches for freshman and sophomore participants, as the developmental closeness in age and experience added some difficulty. For this reason, there was a great deal of “coaching the coaches” around both application of the intervention model, as well as their own academic and personal challenges. This is not atypical for peer-delivered programming, which often requires specialized supervision and support (e.g., Delman & Klodnick, 2016), and our experience suggests that coaching was more successful when delivered by graduate or undergraduate students who had both lived experience with foster care or mental health services and some degree of life experience above and beyond what would typically be present among coaches a year or two older than the students they are coaching.

Lastly, we want to clarify that our findings reflect a sample that was recruited based on self-identified mental health challenges, rather than a confirmed diagnosis, prescribed medication, or history of service use. This approach was similar to the prior Better Futures model and accounted for the prevalence of a range of potential mental health challenges impacting participants. However, this is not a therapeutic intervention addressing mental health needs specifically and our findings should not be construed to be specifically generalizable to young adults with foster care experience who also experience significant mental health challenges.

4.2. Implications Research, Practice, and Policy

Overall, this study demonstrated the efficacy of our near-peer coaching model for undergraduates with foster care experience and self-identified mental health stressors. However, the primary lesson learned is that the intervention may be more effective as a high school bridge program that also supports their experiences once on a college or university campus. Post-secondary enrollment seems to be a larger impediment than retention once enrolled, and the enrolled population may respond better to a mix of programming at different stages and responsive to individual student developmental needs. Although the intervention did seem to have an overall positive impact on participants, our study enrollment challenges suggest these changes would better serve a group of students that may not otherwise make it to campus and through their first year of post-secondary education.

Our recommendation is for researchers, service providers, and college support staff to consider a less structured near-peer coaching option for students, with connections to formal academic supports for those who choose them. We would however recommend a more structured intervention (i.e., individualized coaching around a set of skills) be made broadly available to assist foster youth with mental health challenges in successfully graduating high school and enrolling in college, thereby helping youth who may have less support in preparing and applying for postsecondary education on their own. More specifically, we recommend focusing efforts towards supporting young people with foster care experience to graduate high school and enroll in college first, rather than beginning intervention after they are already attending college. Although this is an important distinction, our study still supports the findings of other colleagues and highlights a need for near-peer campus-based support for students with foster care histories which recognizes their foster care identity as part of their developing college student identity. Going forward, our research will develop and test this intervention as a “bridge” for supporting

youth with foster care experience on their pathway out of high school and towards post-secondary success.

The availability of such programming is of course influenced by higher education policy that recognizes the unique needs of this population and allocates funding for programming to increase post-secondary access, retention, and graduation. For example, in the US, the Fostering Success in Higher Education Act of 2022 has just been introduced (as of this writing) to specifically expand campus-based support to students who are transitioning from foster care or experiencing homelessness, in addition to existing funding for impactful benefits like foster youth Education and Training Vouchers (e.g., Okpych et al., 2020). Further, recent research establishes the importance of being in extended foster care on post-secondary enrollment (among a range of positive youth outcomes; e.g., Courtney, Okpych, & Park, 2021), although to date only about half of US states allow youth to stay in care past age 18. International policy analysis (e.g., Mendes & Snow, 2016) similarly advocates for the ongoing expansion of population-specific supports based on lessons learned in the US and the United Kingdom (e.g., Mendes & Rogers, 2020) and beyond, especially given that this population experiences shared barriers to higher education that suggest that this phenomenon is “both ubiquitous and in many ways similar across jurisdictions and international boundaries” (Wilson, Harvey, & Mendes, 2019, p. 573).

5. Conclusion

This study is the first identified randomized experiment to evaluate a post-secondary support program for enrolled college students with foster care backgrounds and mental health challenges. Findings suggest that such structured coaching approaches can increase self-determination and self-efficacy among these students in ways that may impact retention and potentially degree completion. On the other hand, we faced consistent recruitment challenges on

this project, given the difficulties these students face in enrolling in college at all; our experience suggests that dedicated programming for this population should span multiple years and bridge between the last year of high school and the first full year of post-secondary enrollment. Ongoing research will explore lessons learned from both Better Futures (post-secondary preparation) and Project Futures (post-secondary support and retention) to determine how intervention strategies from these programs may be sequenced to fully support students in foster care during this transition.

Tables and Figures

Table 1.

Descriptive statistics for the study sample ($N=35$).

	Treatment		Control		Total	
	<i>n</i>	<i>% of group</i>	<i>n</i>	<i>% of group</i>	<i>n</i>	<i>% of sample</i>
Female	10	66	15	75	25	71
Male	5	33	5	25	10	29
White/Caucasian	10	66	11	55	21	60
Other Race	5	33	9	45	14	40
Not Hispanic	13	87	15	75	28	80
Hispanic	2	13	5	25	7	20
Identified Disability	7	47	12	60	19	54
No Disability	8	53	8	40	16	46
In extended foster care	6	35	8	40	14	40
No longer in foster care	9	65	12	60	21	60
Working	8	53	13	65	21	60
Not Working	7	47	7	35	14	40
First Generation College	10	66	6	32	16	47
Not First Generation	5	33	13	68	18	53
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
Age	20.47	2.77	20.50	2.44	20.49	2.55

Table 2.

FUTURES self-determination skills and postsecondary activities.

<p>Self-determination Skills</p>	<ol style="list-style-type: none"> 1. Identify Dreams or Future Plans (for life as a whole and for higher education) 2. Set Goals (consider, narrow down, and identify priority short-term activities) 3. Make Decisions (gathering info, weighing pros and cons) 4. Problem Solve strategies to accomplish activities and to overcome barriers 5. Assertiveness (being transparent, friendly, and direct) 6. Negotiate (reaching agreement with all involved in a decision) 7. Identify Accommodations 8. “Hang tough” in managing stress 9. Track Accomplishments & Strengths 10. Find Allies
<p>Post-Secondary Activities</p>	<ol style="list-style-type: none"> 1. Off- campus activity to explore an interest/need relevant to the student 2. Participate in an on-campus social or recreational activity 3. Participate in a career development activity on or off-campus 4. Do an activity to network with faculty in your interest area 5. Visit an on-campus resource 6. Meet with Financial Aid Advisor 7. Meet with Academic Advisor 8. Develop a support agreement with at least one ally

Table 3.

Bivariate test examining differences in study outcomes at baseline, post-treatment and follow-up by treatment condition ($N=35$).

	Baseline				Post-treatment				<i>d</i>	Follow-up					
	Control		Treatment		Control		Treatment			Control		Treatment			
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD		\bar{x}	SD	\bar{x}	SD	<i>d</i>	
AIR Self-Determination Scale ^a	70.05	10.33	72.93	6.50	68.40	10.34	72.21	11.10		69.07	10.46	72.43	8.58		
FUTURES self -determination score ^a	2.05	.60	2.33	.35	1.48	.48	2.26	.46	1.66***	1.77	.67	2.25	.43	.85*	
Career Decision Self-Efficacy ^a	2.95	.64	2.92	.49	2.73	.70	3.29	.55	.89*	2.82	.54	3.11	.61		
YES-MH ^a	3.77	.61	3.92	.49	3.40	.64	3.94	.54	.91*	3.57	.78	4.12	.54		
Grade Point Average ^a	2.85	.82	2.94	.57	2.95	.71	3.22	.34		2.56	.52	3.06	.55	.93*	
	\bar{x}	<i>med</i>	\bar{x}	<i>med</i>	\bar{x}	<i>med</i>	\bar{x}	<i>med</i>	<i>r</i>		\bar{x}	<i>med</i>	\bar{x}	<i>med</i>	<i>r</i>
Career goals exploration ^b	2.25	2.00	3.07	2.00	1.70	1.50	3.00	3.00	.499**		1.87	1.00	2.93	3.00	.347*
											<i>n</i>	%	<i>n</i>	%	
Post-secondary enrollment ^c									No	5	.33	1	.07		
									Yes	10	.67	13	.93		

Note. a. Independent samples *t*-test; b. Mann Whitney U test; c. Fisher's exact test. *med* = Median. *r* = effect size for Mann-Whitney U test. *d* = Cohens *d* effect size.

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