

**Design, Evaluation, and Feasibility
of a Pediatric Mentoring Program**

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Abstract

A chronic illness can have a significant impact on a child's psychological and social wellbeing. Although children and their families show great ability to adapt to chronic health conditions, epidemiologic studies show that these same children display twice the prevalence of psychological symptoms when compared to children without a chronic condition. One intervention that may improve a child's psychosocial wellbeing is a "buddy program" involving one-on-one mentorships between medical students and children diagnosed with a chronic illness. One-on-one mentoring has been shown to be successful in promoting better social, academic, and behavioral outcomes, with some follow-up studies showing these benefits to extend a year or more beyond the end of a youth's participation in a mentoring program. The purpose of this study is to design and evaluate the feasibility of a buddy program between pediatric chronically ill patients at Phoenix Children's Hospital and medical students at the University of Arizona College of Medicine – Phoenix Campus.

Table of Contents

1.0	Introduction	1
2.0	Goals and Objectives	5
3.0	Buddy Program Design	9
3.1	Research Methods	9
3.2	Participants	9
3.3	Matching of Pediatric Patients/Families with Students	10
3.4	Mentoring Relationship	12
3.5	Medical Student Role	14
3.6	Training Program	14
3.7	Risk Assessment	16
4.0	Buddy Program Evaluation	18
4.1	Subject Recruitment and Enrollment	18
4.2	Randomization	22
4.3	Confidentiality and Privacy	22
4.4	Study Design	26
4.5	Analysis Instruments	27
4.5.1	PedsQL Generic Core Scales and Family Impact Module	30
4.5.2	Mentor-Youth Alliance Scale	32
4.5.3	Introductory Survey for Pediatric Patients in Intervention Group	32
4.5.4	Follow-Up Survey for Pediatric Patients in Intervention Group	33
4.5.5	Interview with Pediatric Patients in Intervention Group	33
4.5.6	Introductory Survey for Parents	35
4.5.7	Follow-Up Survey for Parents in Intervention Group	36
4.5.8	Final Survey for Parents in Intervention Group	37
4.5.9	Introductory Survey for Students in Intervention Group	37
4.5.10	Follow-Up Survey for Students in Intervention Group	38
4.5.11	Final Survey for Students in Intervention Group	39
4.5.12	Introductory Survey for Students in Control Group	40
4.5.13	Final Survey for Students in Control Group	40
4.5.14	Reliability and Validity of Instruments Developed for this Study	40
4.5.15	Data Collection Timeline	42
4.6	Data Analysis	43
5.0	Feasibility of Buddy Program	46
5.1	Research Method	46
5.1.1	Participants	46
5.1.2	Survey	46

5.1.3	Procedure	47
5.2	Results	48
5.2.1	Items Regarding Current Extracurricular Activities	48
5.2.2	Items Regarding Buddy Program	51
5.2.4	Items Regarding Experience with Chronic Illness	52
5.3	Discussion	54
5.4	Conclusion	56
6.0	References	58
7.0	Poster	62

List of Tables and Figures.

Tables:

Table 1 – Data Collection Timeline	42
Table 2 – Time spent in extracurricular activities by year in medical school.	49
Table 3 – Frequency of participation in extracurricular activities by year in medical school	50
Table 4 - Interest in and reasonability of time commitment of buddy program by year in medical school	51

Figures:

Figure 1 – Time spent on extracurricular activities per week	48
Figure 2 – Frequency of participation in extracurricular activities per week	49

1.0 Background and Significance

A chronic illness can have a significant impact on a child's psychological and social wellbeing. Although children and their families show great ability to adapt to chronic health conditions, epidemiologic studies show that these same children display twice the prevalence of psychological symptoms when compared to children without a chronic condition ¹. While a chronic physical disorder is a potential stressor to which a child has to continuously adapt, there are also "resistance factors" that may aid a child's adjustment to a chronic illness ². These resistance factors include non-familial social support ³. One intervention that may strengthen this resistance factor is a "buddy program" involving one-on-one mentorships between medical students and children diagnosed with a chronic illness. Several children's hospitals and medical schools around the United States have established these buddy programs, including the University of California San Francisco, Stanford, and Rush Medical College. In these programs, medical students are matched with a pediatric patient. Medical students visit the pediatric patient periodically and contact him/her via phone, email, or mail ⁴⁻⁷. The goal of these programs is to provide a pediatric patient with a mentor who can offer support and friendship, and to provide

the medical student an opportunity to foster understanding and compassion for families dealing with chronic illnesses ⁷.

It is possible to begin a “buddy program” between the students at the University of Arizona College of Medicine – Phoenix and Phoenix Children’s Hospital. Although Phoenix Children’s Hospital provides extensive Child Life and social support programs for its patients, it currently includes no program of this nature. In this psychosocial support network, there is a unique niche for a buddy program. A buddy program provides patients with social support through a long-term relationship with a medical student. The medical student is capable of understanding a child’s medical situation, but is not directly involved in the child’s medical care; instead, their primary concern is to be a friend/mentor to the patient. A medical student/pediatric patient buddy program should have benefits similar to traditional youth mentoring programs, such as the “Big Brothers/Big Sisters” program ⁸. One-on-one mentoring has been shown to be successful in promoting “better social, academic, and behavioral outcomes,” with some follow-up studies showing these benefits to extend a year or more beyond the end of a youth’s participation in a mentoring program ⁹. It appears that mentors influence their protégé’s development by “enhancing social skills and emotional well-being, improving cognitive skills, and promoting positive identity development by serving as a role model and advocate” ¹⁰

A buddy program may also have an indirect effect on the family of the pediatric patient. Having another adult present may provide additional emotional and social support for the families, and may lessen the stress on the parents ⁴.

Additionally, there are potential benefits for the medical students who participate in a buddy program. Although UACOM-PHX has an innovative curriculum that incorporates clinical experiences into the first two years of medical school, there is still a limited amount of exposure to pediatric healthcare. A buddy program may be an important supplement to traditional medical education ⁴. A systematic review of 115 reports showed that pediatric illness is stressful for the entire family, and families of critically ill and injured children would benefit from their practitioners acquiring enhanced knowledge and sensitivity about family communication and dynamics ¹¹. Through a buddy program, medical students may have a chance to experience the impact of pediatric chronic illness on a more personal level, and hopefully develop a deeper understanding of personalized, compassionate patient care. They may also have a chance to see a patient's experiences outside the hospital and better understand family-centered healthcare ¹². In addition, they may become more comfortable dealing with emotionally difficult medical situations and communicating with patients. These aptitudes would be beneficial for all future doctors.

Although many psychosocial interventions for pediatric chronic conditions are reported in the literature, few have been evaluated for their effects. Nonetheless, it is important for an intervention to be evaluated to determine its benefits and justify its costs¹³. The author has developed both quantitative and qualitative measures to evaluate a buddy program throughout its first year. Factors involving pediatric quality of life, family impact, the buddy relationship, and medical student awareness of pediatric chronic illness can be measured and analyzed.

Finally, to determine the feasibility and desirability of this buddy program, a survey was administered to medical students at the UACOM-Phoenix. The results of this survey are important in implementing a buddy program that is feasible for medical students to participate in. It also measures the desirability of such a program to determine if it can be implemented as a sustainable project.

2.0 Goals and Objectives

The goals of this project are to:

- 1) Design a buddy program to pair pediatric chronically ill patients at Phoenix Children's Hospital with medical students at the University of Arizona College of Medicine – Phoenix Campus
- 2) Design a method of evaluating the effects of the buddy program through quantitative and qualitative measures.
- 3) Determine the feasibility of implementing the buddy program from a medical student perspective.

The objectives of the buddy program are to:

- 1) Provide the pediatric patients with
 - A friend who can provide social, moral, and emotional support and companionship between medical visits
 - A friend who can visit and accompany them during medical visits at the hospital / clinic, who does not participate directly in their medical care but can provide social support and encouragement during their medical visit
- 2) Provide the medical students with

- An opportunity to gain insight into the personal and family impact of a chronic illness by focusing on their friendship with a patient, rather than his/her disease process.
- An opportunity to gain exposure to pediatric patients' experiences in the hospital / clinic and to develop empathy and understanding from these experiences

The objectives of the evaluation process are to:

- 1) Determine any effect of the program on pediatric quality of life, as measured by the PedsQL™ Generic Core Scales¹⁴⁻¹⁸, to be completed by the patient and his/her parent(s)
- 2) Determine any effect of the program on the patient's family, as measured by the PedsQL™ Family Impact Module¹⁹, to be completed by the parent(s)
- 3) Determine the strength of the medical student-pediatric patient relationship, as measured by the Mentor-Youth Alliance Scale²⁰ and supplemental quantitative questions, to be completed by the patient and the medical student
- 4) Determine the medical student's awareness of the patient's quality of life, as measured by the PedsQL™ Generic Core Scales, to be

completed by the medical student and compared to the reports completed by the patient and his/her parent(s)

- 5) Determine the medical student's awareness of the impact of chronic illness, perception of the pediatric patient, and impression of the patient-doctor relationship, as measured through qualitative questions on a written questionnaire
- 6) Determine the medical student's comfort level with communicating with pediatric patients and families and dealing with emotionally difficult situations in a healthcare setting, as measured through quantitative and qualitative questions on a written questionnaire
- 7) Determine the patient's satisfaction and perception of the buddy program and buddy relationship, as measured through an interview with the investigator 9-12 months after the start of the program
- 8) Determine the parent's satisfaction and perception of the buddy program as measured through quantitative and qualitative questions on a written questionnaire
- 9) Determine the medical student's satisfaction and perception of the buddy program as measured through quantitative and qualitative questions on a written questionnaire

The objectives of the medical student survey are to:

- 1) Determine current/anticipated medical student involvement in extracurricular activities
- 2) Determine previous experience with chronic illness and specifically, pediatric chronic illness
- 3) Determine interest in participating in a pediatric buddy program

3.0 Buddy Program Design

3.1 Research Methods

A literature review of mentoring programs between healthcare workers or students and patients was performed using PUBMED and the search terms “mentoring,” “buddy,” “students,” and “healthcare workers”. A literature review of research regarding the design of effective mentoring programs for children was also performed. A tentative program design was formed based on this previous research.

3.2 Participants

Participants in the buddy program include:

1. Patients of Phoenix Children’s Hospital who are aged 8-17, male or female, who have been diagnosed with a chronic condition.
 - There is considerable variability in the definition of childhood chronic health conditions ²¹. For the purposes of this program, a pediatric chronic condition is defined as a condition that lasts greater than 3 months and affects daily functioning ².
2. Parents/guardians of children with a chronic condition

- At least one parent/guardian, male or female, of each pediatric patient is included in the program.

3. Medical students

- All medical students enrolled at the University of Arizona College of Medicine – Phoenix Campus are eligible to participate in the program. All third and fourth year medical students enrolled at the University of Arizona College of Medicine – Tucson Campus who are completing their clinical years in Phoenix are eligible to participate in the program.

3.3 Matching of Pediatric Patients/Families with Students

Shared interests and characteristics are reliable predictors of a strong mentor-youth relationship. Additionally, while shared interests help in the formation of a new relationship, demographic similarity (same race, gender) in mentor-youth pairs is not necessary ²⁶. Consequently, medical students and pediatric patients will be matched by their interests and living proximity, but will not be matched by gender or race.

Prior to beginning the program, students and patients will fill out the “Introductory Survey” (see appendix). In the Introductory Surveys, students

and patients are asked to select 3 things they were most interested in from a list of eight items: sports, art, music, animals/pets, games, books, movies, traveling. Patients will be matched with students who share the same 3 interests. If a patient does not share all 3 interests with any student, s/he will be matched with a student with 2 of the same interests, and so on. If a patient shares the same degree of interests with more than one student, the student who lives closer to the patient will be matched with the patient.

We have two reasons for declining to match patients and students by gender. First of all, there is no evidence the same gender mentor-youth pairs form stronger relationships than mixed-gender mentor-youth pairs²⁶. Secondly, we anticipate more female than male medical student participants due to the gender distribution of the medical school classes and of medical students who are interested in pediatrics. Matching by gender would likely cause us to exclude male patients from participating in the program. We realize that this may result in teenage patients being matched to medicals students of the opposite gender. However, we do not anticipate problems with this match. The medical school curriculum provides training and evaluation of professionalism in interactions with patients. In addition, this issue will be addressed in the mentor training session(s).

3.4 Mentoring Relationship

Time commitment:

Students and children in the buddy program will meet once a month and contact each other once a week via phone, email, or mail. In addition, students will participate in an initial training session (see section 3.6). The estimated time commitment for this program would be 4 hours for initial training, followed by 4 hours/month for a face-to-face meeting, and approximately 15-30min/week for communication with pediatric patient via phone, email, or mail. Students and children will be matched together for one year.

Activities:

Different patients will have different activity and functional levels, so the medical students will have to discuss meeting locations and activities with their buddies' parents. They may choose to meet at Phoenix Children's Hospital when the child has an appointment, procedure, or is hospitalized. They may also choose to meet at the family's home, or at a designated meeting place in the community.

Potential meeting locations and activities include²⁷:

- Phoenix Children's Hospital
- Home of Pediatric Patient / Family
- Phoenix Zoo
- Wildlife World Zoo
- Out of Africa Wildlife Park
- Arizona Science Center
- Heard Museum
- Children's Museum of Phoenix
- Sunsplash / Bigsurf / Kiwanis Wave Pool
- Piestewa Peak
- Desert Botanical Gardens
- Major League Baseball Spring Training Games
- Arizona Diamondback games
- Cooking / baking
- Play sports and games, fly kites at the local park
- Learn a foreign language together
- Arcades – Gameworks, Dave and Busters, Peter Piper's Pizza, etc.
- Mini-golf
- Go-carts
- Board games

A more extensive list of potential meeting locations and activities will be provided for the students during their training program (see 3.6).

3.5 Medical Student Role

The role of the medical student is as a mentor and friend. Medical students are not permitted to give medical advice, regardless of their year in medical school. Medical students will be responsible for providing their own transportation to meeting locations, but will not be responsible for driving their buddies to meeting and activity locations. Medical students are also not expected to pay for their buddy during outings with expenses.

The roles of the pediatric patients, parents, and medical students in this unique relationship will be outlined in the informed consent form to prevent misunderstanding and misuse of the program.

3.6 Training Program

Prior to meeting their pediatric buddy, the students will participate in training. The purpose of the training is to provide information about building strong youth-mentor relationships and interacting with chronically ill pediatric patients.

One phase of the training will focus on youth-mentor relationships. Students will read a training manual provided by Big Brothers Big Sisters of Central Arizona. They may also attend one of the bimonthly trainings held by Big Brothers Big Sisters.

The second phase of training focuses on chronically ill pediatric patients and their families. Students will read articles related to the psychosocial effects of chronic illness on children and their families. A discussion may also be held with a physician / social worker who is experienced in this area.

A post-test covering both phases of training will be administered to the students to ensure understanding of the objectives. The students must achieve a 70% on the post-test to begin the buddy program.

3.7 Risk Assessment

The major risk of this research study is the potential negative psychosocial impact of a failed buddy relationship on the pediatric patient. Previous research regarding mentoring programs has shown that the quality and length of the mentor-youth relationship is the strongest predictor of positive outcomes ²⁴. Studies show that relationships lasting a year or longer report progressively greater improvements in academic, psychosocial, and behavioral outcomes than relationships that terminated sooner ²⁵. Youth who participated in mentor-youth relationships that terminated prematurely experienced a decline in self-concept ²⁴.

To prevent the risk of a failed buddy relationship from occurring, medical students commit to the buddy program for a minimum of one year. Additionally, medical students will go through mentor relationship training before the start of the program, which has been shown to improve the mentor-youth relationship ²⁶. Students will be advised on how to enhance connectedness with youth, including the concepts of informal socializing, responsiveness to youth's needs and desires, respect, and teaching ²⁶. Another predictor of a strong mentor-youth relationship is shared interests and characteristics. It has been found that while shared interests help in the

formation of a new relationship, demographic similarity (same race, gender) in mentor-youth pairs is not necessary ²⁶. Consequently, medical students and pediatric patients will be matched by their interests as well as by proximity to each other. These features should minimize the risk of a failed buddy relationship.

4.0 Buddy Program Evaluation

The second phase of this project involved designing a research study to evaluate the buddy program if implemented. While some case studies have been published regarding mentoring programs between students/health workers and patients, no comprehensive studies were found during literature review. The research design is detailed in the following sections.

4.1 Subject Recruitment and Enrollment

Recruitment of Patients and Families:

- Parent and children participants will be recruited via recruitment fliers posted in various departments at Phoenix Children's Hospital.
- Social and child life workers at Phoenix Children's Hospital will be notified of the study, and may recruit patients and families through referral and distribution of recruitment flyers as well.
- Please see appendix for recruitment flier.

- *Recruitment of Medical Students*

- Medical students will be recruited via recruitment fliers posted around the UACOM – Phoenix campus. The recruitment flier will also be sent as an email attachment to the class listservs.
- Please see appendix for recruitment flier

Informed consent forms and assent forms will be provided to medical students, parents, and children interested in participating in the study.

Potential participants will be allowed to review the consent/assent forms at their own pace before being asked to consent. Participation in this study is completely voluntary. Subjects may choose to withdraw from the study at any time without penalty. No incentives of any kind will be offered to subjects for study participation.

All patients and families interested in the study will contact the principal investigator or study coordinator. To enroll, the parent(s) will be asked to complete:

1. Informed Consent Form for Parents
2. Study Enrollment Form for Parents
3. Introductory Survey for Parents

The patient will be asked to complete:

1. Assent Form for Patients

The principal investigator will assign the participating patient and family member(s) each a unique code, which will serve as their ID numbers for the study. The code will match the patient's and family member's surveys together, while maintaining confidentiality of the survey results (see section 4.3).

All medical students interested in the study will contact the principal investigator or study coordinator. Students interested in participating in the buddy program will form the Medical Student Intervention Group (MSIG). Students interested in participating in the study, but not in the buddy program will form the Medical Student Control Group (MSCG).

To enroll in the study, students in the intervention group will complete:

1. Informed Consent Form for Students
2. Study Enrollment Form for Students
3. Introductory Survey for Students

To enroll in the study, students in the control group will complete:

1. Informed Consent Form for Students
2. Study Enrollment Form for Students

The principal investigator will assign the participating medical student a unique code, which will serve as their ID number for the study. The code will match the medical student's surveys to those of his/her pediatric patient buddy and family, while maintaining confidentiality of the survey results.

4.2 Randomization

Because of the limited number of medical students able to participate in the buddy program, medical students will not be randomly assigned to the intervention or control group. All interested students will be assigned to Medical Student Intervention Group (MSIG). Students not interested in participating in the buddy program but willing to participate in the study will be assigned to the Medical Student Control Group (MSCG). We realize this introduces selection bias, but feel it is still important to form a control group for comparison with the intervention group.

After the number of medical student buddies are confirmed, a matching number of patients/families will be randomly selected from the sample group to participate in the buddy program and form the Patient/Parent Intervention Group.

4.3 Confidentiality and Privacy

All subjects enrolled in the study will be assigned a unique 10-digit ID number for the study. It is important for all surveys to contain the subjects' ID numbers. This enables surveys of a medical student-patient-parent unit to

be matched together, and also allows for the researchers to track the survey responses.

The first four numbers represent the child, the next 3 numbers represent the parent(s) participating in the study, and the last 3 numbers represent the student.

The ID numbers will be generated as follows:

- GCCCRNNYSS = ID number
- GCCC = child number
 - G = gender of child (1 = female, 2 = male)
 - CCC = child number (allows up to 999 child subjects)
- RNN = parent/guardian number
 - R = relationship to child (1 = mother, 2 = father, 3 = stepmother, 4 = stepfather, 5 = grandmother, 6 = grandfather, 7 = other legal guardian)
 - NN = parent number (allows up to 99 family members per child)
- YSS = student number
 - Y = year in medical school (1, 2, 3, 4)
 - SS = student number (allows up to 99 medical students in each grade)

With the exception of the child numbers (2nd-4th digits), numbers that do not apply to the subject will be coded with zeroes. Therefore, the first four digits match this group together.

For example, a young man is participating in the study with his mother. He is matched to a medical student in her 3rd year of medical school. Their ID numbers would be:

- Child: 2001000000
- Mother: 0001101000
- Student: 0001000301

A spreadsheet containing the subjects' identifying information and unique ID numbers will be created. This spreadsheet will be the only link between the subjects' ID numbers and their names. This spreadsheet will be stored separately from the other study data, and will only be accessible by the principal investigator under necessary circumstances. Survey results will not be traced back to the subjects' names.

A separate spreadsheet containing the subjects' unique ID numbers, their contact information, and demographic information will be created. This will

be the spreadsheet used to distribute surveys and keep track of responses.

Surveys will be mailed with the ID number already written on them. Subjects will be instructed to refrain from entering any identifying information on the surveys.

4.4 Study Design

This study will incorporate several study designs.

- Randomized controlled trial
 - When enrolling in the study, all pediatric patients and parents will complete the PedsQL™ Generic Core Scales and Family Impact Module.
 - The patient/family intervention group who will participate in the buddy program will be randomly selected from the group of voluntary participants, and will also participate in the panel study. (see below)
 - The control group will be placed on a waitlist to join the buddy program when more medical student volunteers are available. They will be asked to complete the PedsQL™ Generic Core Scales and Family Impact Module one year after the start of the study, to compare with the intervention group.
- Control-series design
 - The medical student intervention group who will participate in the buddy program will be a self-selected group. These medical students will complete a questionnaire assessing awareness

about pediatric chronic illness at the start of the buddy program and one year following, and also participate in the panel study. (see below)

- A nonequivalent control group of medical students will complete the questionnaire assessing awareness about pediatric chronic illness at the start of the buddy program and one year following, to compare with the intervention group.
- Panel study (repeated-measures reflective controls)
 - Pediatric patients, parents, and medical students who participate in the buddy program will be compared to themselves as measured before, during, and after the program.

4.5 Analysis Instruments

Analysis instruments will vary depending on the subject group. Analysis instruments can be summarized as follows:

- When applying to the program,
 - All Parents will complete:
 - **PedsQL Pediatric Quality of Life Inventory Parent Report**

- **PedsQL Family Impact Module**
 - **Introductory Survey for Parents**
- All Children will complete:
 - **PedsQL Pediatric Quality of Life Inventory
Child/Teen Report**
 - **Introductory Survey for Children**
- All Students will complete:
 - **Introductory Survey for Students**
- 3 months, 6 months, and 9 months following the initiation of the program
 - Parents in Intervention Group will complete:
 - **PedsQL Pediatric Quality of Life Inventory Parent
Report**
 - **PedsQL Family Impact Module**
 - **Follow-Up Survey for Parents**
 - Children in Intervention Group will complete:
 - **PedsQL Pediatric Quality of Life Inventory
Child/Teen Report**
 - **Follow-Up Survey for Children**
 - Students in Intervention Group will complete:
 - **PedsQL Pediatric Quality of Life Inventory Parent
Report**

- **Follow-Up Survey for Students**
- *1 year following initiation of the program*
 - Parents in Intervention Group will complete:
 - **PedsQL Pediatric Quality of Life Inventory Parent Report**
 - **PedsQL Family Impact Module**
 - **Final Survey for Parents**
 - Children in Intervention Group will complete...
 - **PedsQL Pediatric Quality of Life Inventory Child/Teen Report**
 - **Final Survey for Children**
 - **Interview**
 - Students in Intervention Group will complete...
 - **PedsQL Pediatric Quality of Life Inventory Parent Report**
 - **Final Survey for Students**
 - Parents in Control Group will complete:
 - **PedsQL Pediatric Quality of Life Inventory Parent Report**
 - **PedsQL Family Impact Module**
 - Children in Control Group will complete...

- **PedsQL Pediatric Quality of Life Inventory**

- **Child/Teen Report**

- Students in Control Group will complete...

- **Final Survey for Students**

Please see appendix for copies of all analysis instruments.

4.5.1 PedsQL™ Generic Core Scales and Family Impact Module

The PedsQL™ Generic Core Scales and Family Impact Module were chosen to measure quality of life and family impact because their reliability and validity have been supported in several studies as summarized below.

The PedsQL™ Generic Core Scales consist of 23 items and takes less than 4 minutes to complete. It is multidimensional, utilizing physical, emotional, social, and school functioning scales ¹⁴. There are several versions of the Generic Core Scales: toddler (ages 2-4), young child (ages 5-7), child (ages 8-12), teen (ages 13-18), and parent. For this study, we will be utilizing the child, teen, and parent reports. In a study involving 10,241 families, the PedsQL™ showed excellent reliability for the Total Scale Score, with alpha = .89 for the child report, and alpha = .92 for the parent report ¹⁷. Validity was

demonstrated using the known-groups method, correlations with indicators of morbidity and illness burden, and factor analysis ¹⁵. PedsQL™ also displayed validity by accurately distinguishing between healthy children and children with chronic health conditions. Severity of chronic health conditions was also predicted by the PedsQL™, and the scales are responsive to clinical change over time ^{16, 23}.

The PedsQL™ Family Impact Module consists of 36 items and is also quick to complete. It was designed to measure the impact of pediatric chronic health conditions on parents and the family. The Family Impact Module utilizes six scales to measure parent self-reported functioning: physical functioning, emotional functioning, social functioning, cognitive functioning, and worry. There are also two scales to measure parent-reported family functioning: daily activities and family relationships. The PedsQL™ Family Impact Module demonstrated internal reliability of the Total Scale Score (alpha = 0.97) and the Module Scales (average alpha = 0.90). Validity was demonstrated as the PedsQL™ Family Impact Module was able to distinguish between families with children in a long-term care facility and families whose children resided at home ¹⁹.

4.5.2 Mentor-Youth Alliance Scale (MYAS)

Previous research regarding mentoring programs has shown that the quality of the mentor-youth relationship is one of the strongest predictors of positive outcomes ²⁴. The MYAS, or Mentor-Youth Alliance Scale was recently developed as a tool for assessing the quality of mentor-youth relationships by measuring mentee's perceptions of their relationships with their mentors. The MYAS has been shown to be reliable, with a Cronbach's internal consistency coefficient of .92. Its validity was determined via variable-based competency analyses, with MYAS significantly predicting youths' scores in several competency domains: Family Bonding, Relationships with Adults, School Bonding, and Life Skills ²⁰. In this study, the MYAS scale is incorporated into the Follow-Up and Final Survey for children in the intervention group, with the word "mentor" replaced by the word "buddy."

4.5.3 Introductory Survey for Pediatric Patients in Intervention Group

In addition to the PedsQL™ Generic Core Scales, pediatric patients in the intervention group will be asked to complete an introductory survey when enrolling in the study. The introductory survey asks the child why s/he would like to join the program, his/her age and grade in school, and interests.

4.5.4 Follow-up Survey for Pediatric Patients in Intervention Group

The Follow-up Survey for Pediatric Patients is a 17-item survey instrument designed by the investigator. The survey is a self-reported instrument designed to be completed in approximately 10 minutes. The survey will be administered at 3, 6, 9, and 12 months following the start of the program.

Question 1 asks the child to recall previous interactions with his buddy: in person, in the hospital/clinic, via telephone, via email/online messaging, and via postal mail. Questions 2-11 are adapted from the Mentor-Youth Alliance Scale, discussed above. Questions 12-13 assess the child's comfort level at the hospital/clinic and comfort level with talking about his/her health. Questions 14-17 assess the child's feelings about the program. Questions 2-14 are based on a 4-point Likert scale, with 1 = strongly disagree and 4 = strongly disagree. Questions 15-17 are open-ended questions.

4.5.5 Interview with Pediatric Patients in Intervention Group

Pediatric patients in the intervention group will be asked to participate in an interview with the investigator 9-12 months after the start of the program.

The interview provides an opportunity for a qualitative assessment of the child's perception of the program. The interview will address the child's relationship with his/her buddy, expectations of the program, feelings about the program, positive effects, and disappointments of the program.

Interviews will be scheduled for 30 minutes, and will be based on the following questions:

1. Do you remember why you wanted to join the buddy program?
2. What do you like about the buddy program?
3. What don't you like about the buddy program?
4. What do you like most about having a buddy?
5. What kind of activities have you done with your buddy?
6. What do you enjoy doing the most with your buddy?
7. Has your buddy visited you at a hospital or clinic? If yes, what's it like to have a buddy with you when you're at a hospital or clinic?
8. Is there anything you don't like about your buddy?
9. Has your buddy ever let you down or made you feel bad?
10. Have you been able to see your buddy as much as you want to?
11. Do you like talking with your buddy?
12. Do you feel comfortable telling your buddy secrets or talking about personal things?

13. Is there anything that you think having a buddy has helped you with?

14. Is there anything that you can think of that would improve the buddy program or your relationship with your buddy?

15. What has been your most memorable experience with your buddy?

4.5.6 Introductory Survey for Parents

This introductory survey for parents addresses the child's diagnosis and treatment plan, special considerations for the buddy when planning activities, child's previous and current experiences with psychosocial support programs, and the parent's goals and objectives for enrolling in the study.

This survey will be completed by parents in the intervention group and parents in the control group.

4.5.7 Follow-Up Survey for Parents in Intervention Group

Parents in the intervention group will be asked to complete a 14-question survey instrument designed by the investigator at 3, 6, and 9 months after the start of the program. The survey is a self-reported instrument designed to be completed in approximately 10 minutes.

Question 1 asks the parents to recall previous interactions between their children and their buddies: in the hospital/clinic, via telephone, via email/online messaging, and via postal mail. Question 2 asks the parent to recall how often s/he is present during interactions between the child and buddy. Question 2 is based on a 5 point Likert scale, with 1 = never and 5 = almost always. Questions 3-5 assess the parent's relationship with his/her child's buddy. Questions 6-8 assess the parent's perception of the effect of the buddy program on the child. Questions 9-10 assess personal benefits the parent might have experienced from the buddy program. Questions 11-14 assess the parent's perception and feelings about the buddy program and its positive/negative effects. Questions 3-11 are based on a 4-point Likert scale, with 1 = strongly disagree and 4 = strongly disagree. Questions 12-14 are open-ended questions.

4.5.8 Final Survey for Parents in Intervention Group

Finally, the parents in the intervention group will be asked to complete a 16-question survey instrument 12 months after the start of the program. This survey is identical to the 14-question survey administered at 3, 6, and 9 months, with two additional open ended questions. Question 15 asks for suggestions to improve the program, and question 16 asks if the parent would be willing to participate in the program again.

4.5.9 Introductory Survey for Students in Intervention Group

At the beginning of the study, medical students in the intervention group will be asked to complete a 11-question survey instrument designed by the investigator. This instrument should take approximately 20 minutes to complete.

Questions 1-4 are open-ended questions addressing the student's previous experiences with chronic illness and current perception of the impact of chronic illness on pediatric patients and their families. Questions 5-9 assess the students' comfort level in healthcare settings and in interacting with pediatric patients and their families. They are based on a 4-point Likert

scale, with 1 = not at all true and 4 = very true. Question 10 is an open-ended question addressing the student's goals and objectives for joining the buddy program. Question 11 addresses the student's interests, and will be used to aid in the matching of the medical student with a pediatric patient.

4.5.10 Follow-Up Survey for Students in Intervention Group

At 3, 6, and 9 months after the start of the buddy program, medical students in the intervention group will be asked to complete a 29-question follow-up survey instrument designed by the investigator. This survey should take approximately 30 minutes to complete.

Questions 1 and 3 are open-ended questions addressing the student's current perception of the pediatric patient and the impact of pediatric chronic illness on families. Question 2 asks the student to recall previous interactions with his buddy: in person, in the hospital/clinic, via telephone, via email/online messaging, and through the mail. Questions 4-9 assess the students' comfort level in healthcare settings and interacting with pediatric patients and their families. Questions 10-25 assess the student's perception of and satisfaction with the buddy relationship. Questions 26-29 assess the student's perception of the buddy program, benefits and/or difficulties of the program, learning

experiences, and resources used during the program. Questions 4-25 are based on a 4-point Likert scale, with 1 = strongly disagree and 4= strongly agree. Questions 25-28 are open-ended questions.

4.5.11 Final Survey for Students in Intervention Group

At 12 months after the start of the program, medical students in the intervention group will be asked to complete a 40-item final survey instrument designed by the investigator. This survey should take approximately 45 minutes to complete.

The first 29 questions are identical to the questions on the follow-up survey. The additional 11 questions are all open-ended questions, delving into the student's experience as a buddy. The student will be asked to address issues such as the experience of accompanying a buddy in the hospital, pros and cons about having a buddy, finding time to support a buddy, and how the buddy program has influenced their idea of the patient-doctor relationship. Students will also be asked for suggestions to improve the program and if they would be willing to participate in the program again.

4.5.12 Introductory Survey for Students in Control Group

Medical students in the control group will be asked to complete a 10-question introductory survey at the start of the study. This introductory survey is identical to the 11-question introductory survey completed by students in the intervention group, with the omission of the question addressing goals and objectives of the buddy program.

4.5.13 Final Survey for Students in Control Group

12 months after the start of the study, medical students in the control group will be asked to complete an 8-question final survey. This survey is identical to the 10-question introductory survey for control group medical students, with the omission of two questions: Question 2, which addressed previous experiences with pediatric chronically ill children, and Question 10: which addressed interests of the medical student.

4.5.14 Reliability and Validity of Instruments Developed for This Study

The majority of the data collected in this study will be based on previously validated scales: the PedsQL™ Generic Core Scales and Family Impact

Module and the Mentor-Youth Alliance Scale. Most questions developed by the investigator were based on a 4-point Likert scale, with 1 = strongly disagree and 4 = strongly agree. These questions were included to assess specific effects of a pediatric patient & medical student relationship.

Currently, no scales of this type have been published. These questions will be analyzed separately from the PedsQL and MYAS scales, and will be evaluated for their reliability and validity. Open-ended and interview questions were also included in this study to provide a narrative of the buddy program in detail that cannot be gleaned from Likert-scale questions.

4.5.15 Data Collection Timeline

The data collection timeline is summarized in the following table:

Timeline						
	Start of Study	3 months	6 months	9 months	12 months	
Subject Groups	Pediatric Patients					
	Control group	PedsQL™ GCS Intro Survey				PedsQL™ GCS
	Intervention group	PedsQL™ GCS Intro Survey	PedsQL™ GCS Follow-up Survey	PedsQL™ GCS Follow-up Survey	PedsQL™ GCS Follow-up Survey	PedsQL™ GCS Final Survey Interview
	Parents					
	Control group	PedsQL™ GCS PedsQL™ FIM Intro Survey				PedsQL™ GCS PedsQL™ FIM
	Intervention group	PedsQL™ GCS PedsQL™ FIM Intro Survey	PedsQL™ GCS PedsQL™ FIM Follow-up Survey	PedsQL™ GCS PedsQL™ FIM Follow-up Survey	PedsQL™ GCS PedsQL™ FIM Follow-up Survey	PedsQL™ GCS PedsQL™ FIM Final Survey
	Medical Students					
	Control group	Intro Survey				Final Survey
	Intervention group	Intro Survey	PedsQL™ GCS Follow-up Survey	PedsQL™ GCS Follow-up Survey	PedsQL™ GCS Follow-up Survey	PedsQL™ GCS Final Survey

Table 1 – Data Collection Timeline. *GCS: Generic Core Scales, FIM:*

Family Impact Module

4.6 Data Analysis

- Randomized Controlled Trial
 - Examine the effect of the buddy program on pediatric quality of life as measured by the PedsQL™ Generic Core Scales and family impact as measured by the PedsQL™ Family Impact Module and compared between the control and intervention group.
 - A series of t-tests will be performed to analyze the difference in means between the Total Scores of the control group and intervention group as follows:
 - t-test comparing the means of initial PedsQL™ Generic Core Scales Total Scores
 - t-test comparing the means of initial PedsQL™ Family Impact Module Total Scores
 - t-test comparing the means of PedsQL™ Generic Core Scales Total Scores taken one year later
 - t-test comparing the means of initial PedsQL™ Family Impact Module Total Scores taken one year later

- Control-series design
 - Examine the effect of the buddy program on medical students as measured by the Introductory and Final Surveys for Students and compared between the control and intervention group.
 - A series of t-tests will be performed to analyze the difference in means between the Total Scores of the control group and intervention group as follows:
 - t-test comparing the means of scores of Likert scale questions in Introductory Survey
 - t-test comparing the means of scores of Likert scale questions in Final Survey
- Panel design
 - Examine the effect of the buddy program on the pediatric patient, family, and medical student through time.
 - A series of paired t-tests will be performed to analyze any changes over time that the participants may have experienced.
 - For the pediatric patient, paired t-tests will be performed for:
 - PedsQL™ Generic Core Scales Total Scores
 - MYAS Scores

- Likert Scale Questions in Follow-up and Final Surveys
- For the parent, paired t-tests will be performed for:
 - PedsQL™ Generic Core Scales Total Scores
 - PedsQL™ Family Impact Module Total Scores
 - Likert Scale Questions in Follow-up and Final Surveys
- For the medical student, paired t-tests will be performed for:
 - PedsQL™ Generic Core Scales Total Scores
 - Likert Scale Questions in Follow-up and Final Surveys
- Qualitative assessments
 - Answers to open-ended questions in the surveys and interviews will be analyzed for patterns and regularities.

5.0 Feasibility of Buddy Program

The final phase of this project involved assessing the feasibility of the program, as the program can only be implemented with significant student commitments.

5.1 Research Method

5.1.1 Participants

74 medical students at the University of Arizona – Phoenix participated in this study. Participants were recruited via an email sent through the class listservs. Participation was voluntary and no incentives were offered for participation. Participants included 18 first-year students (24.3% of participants), 22 second-year students (29.7%), 15 third-year students (20.3%), and 19 fourth-year students (25.7%). There were 35 (48.6%) male participants and 37 (51.4%) female participants.

5.1.2 Survey

An Extracurricular Activities Survey was created for the project to assess the current extracurricular commitments of medical students and their interest in joining the buddy program. Within the survey, participants read a short description of the buddy program with estimated time requirements. The

survey included brief demographic information (year in school, gender, career choice) and questions regarding current extracurricular activities. In addition, the survey contained Likert-scale questions for assessing interest in buddy program. Finally, there were three open-ended questions for students to comment on their previous experience with chronic illness, pediatric chronic illness, and their interest or disinterest in the buddy program. (Full survey available in appendix).

5.1.3 Procedure

The survey was administered via Survey Monkey, an online survey website familiar to the students. Participants were recruited via email sent to class listservs. There was a response rate of 44.3% across classes. The fourth year students had the highest response rate at 79.2%, followed by second-year students (45.8%), first-year students (37.5%), and third-year students (31.3%).

5.2 Results

5.2.1 Items Regarding Current Extracurricular Activities

Students were asked how much time and how often they participated in extracurricular activities. The results are summarized as follows.

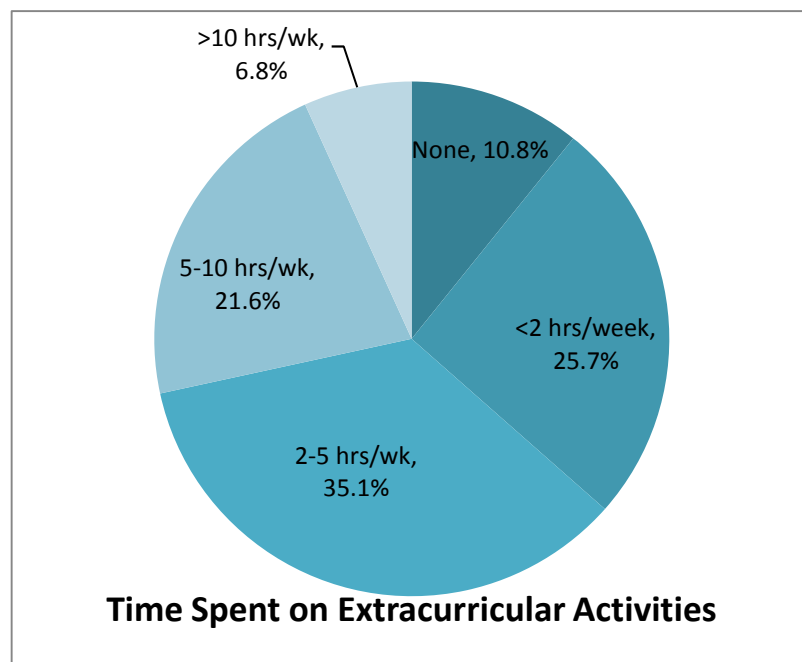


Figure 1 – Time spent on extracurricular activities per week.

Time Spent in Extracurricular Activities	Year in Medical School:				Response Percent
	MSI	MSII	MSIII	MSIV	
None	4.6% (1)	9.1% (2)	26.7% (4)	5.3% (1)	10.8% (8)
<2 hrs/week	22.2% (4)	13.6% (3)	33.3% (5)	36.8% (7)	25.7% (19)
2-5 hrs/wk	50% (9)	31.8% (7)	26.7% (4)	31.6% (6)	35.1% (26)
5-10 hrs/wk	18.7% (3)	31.8% (7)	6.7% (1)	26.3% (5)	21.6% (16)
>10 hrs/wk	1 (.6%)	13.6% (3)	6.7% (1)	0% (0)	6.8% (5)

Table 2 – Time spent in extracurricular activities by year in medical school. Highlighted boxes shows answers of highest prevalence for each class. MS = medical student.

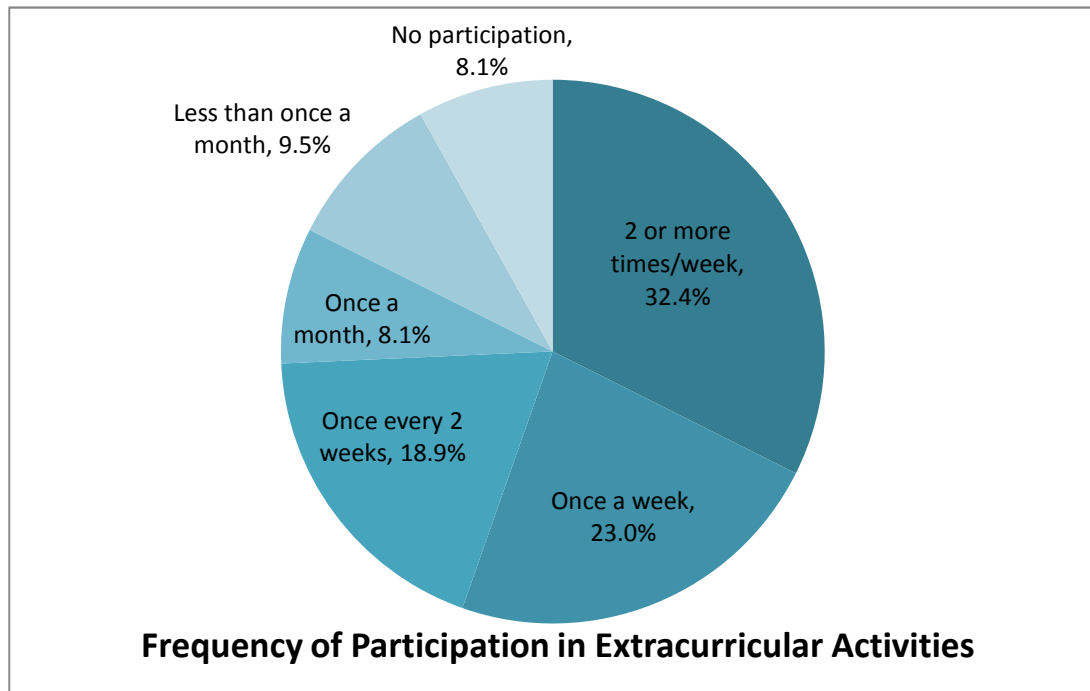


Figure 2 – Frequency of participation in extracurricular activities per week.

Frequency of participation in extracurricular activities	Year in Medical School:				Response Percent
	MSI	MSII	MSIII	MSIV	
2 or more times/week	38.9% (7)	45.5% (10)	20.0% (3)	21.1% (4)	32.4% (24)
Once a week	44.4% (8)	27.3% (6)	6.7% (1)	23.0% (7)	23.0% (17)
Once every 2 weeks	16.7% (3)	13.6% (3)	13.3% (2)	31.6% (6)	18.9% (14)
Once a month	0.0% (0)	4.5% (1)	20.0% (3)	10.5% (2)	8.1% (6)
Less than once a month	0.0% (0)	4.5% (1)	13.3% (2)	21.1% (4)	9.5% (7)
No participation	0.0% (0)	4.5% (1)	26.7% (4)	5.3% (1)	8.1% (6)

Table 3 – Frequency of participation in extracurricular activities by year in medical school. Highlighted boxes shows answers of highest prevalence for each class. MS = medical student.

5.2.2 Items Regarding Buddy Program

Students were asked about their interest in the buddy program and how reasonable they felt the time commitment was via Likert-scale questions. The results are summarized as follows.

Please tell us how much you agree or disagree with each of the following statements by choosing the most accurate answer.					
	Year in Medical School:				
Answer Options	MSI	MSII	MSIII	MSIV	Total
<i>I am interested in participating in a buddy program with a pediatric patient.</i>					
Strongly Agree	22.2% (4)	22.7% (5)	21.1% (4)	21.1% (4)	23.0% (17)
Agree	22.4% (4)	27.3% (6)	33.3% (5)	42.1% (8)	31.1% (23)
Neutral	38.9% (7)	13.6% (3)	13.3% (2)	10.5% (2)	18.9% (14)
Disagree	11.1% (2)	31.8% (7)	20.0% (3)	26.3% (6)	24.3% (18)
Strongly Disagree	5.6% (1)	4.5% (1)	0.0% (0)	0.0% (0)	2.7% (2)
<i>I feel that the time commitment for this program is reasonable.</i>					
Strongly Agree	27.8% (5)	9.1% (2)	46.7% (7)	42.1% (8)	29.7% (22)
Agree	61.1% (11)	68.2% (15)	46.7% (7)	42.1% (8)	55.4% (41)
Neutral	11.1% (2)	13.6% (3)	6.7% (1)	15.8% (3)	12.2% (9)
Disagree	0.0% (0)	9.1% (2)	0.0% (0)	0.0% (0)	2.7% (2)
Strongly Disagree	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

Table 4 – Interest in and reasonability of time commitment of buddy program by year in medical school. Highlighted boxes shows answers of highest prevalence for each class. MS = medical student.

Students were also asked to comment on their interest or disinterest in joining the buddy program. The most common reasons for disinterest in the program included no interest in pediatrics, limited time during clinical years, and too much involvement in other extracurricular activities.

5.2.4 Items Regarding Experience with Chronic Illness

Students were asked to list their experiences with chronic illness as well as their experiences specifically with pediatric chronic illness. Of the 74 participants, 62 answered the following question: “Please describe any previous experience with chronic illness, including experiences with personal illness, illness in the family, previous volunteer and clinic experiences, LCE, etc.” The responses were widely variable, and included such experiences as personal and familial malignancies, volunteer work abroad, and patients encountered during clinical rotations. One respondent even replied “too many to mention.” Of the 62 responses, only two participants replied that they had no experience with chronic illness.

Students were also asked the following question: “Have you had any previous experience with pediatric chronic illness? If yes, please describe briefly.” The positive responses were as varied as that of the previous question, with

experiences including AIDS work in Africa, raising children or siblings with chronic illnesses, patients seen on clinical rotations, and personal childhood illnesses. However, there were 39 (52.7%) students stating that they had no previous experience with pediatric chronic illness.

5.3 Discussion

The aim of this survey was to assess the feasibility of the buddy program by (1) determining if there was medical student interest in implementing the buddy program, and (2) determining whether the time commitment for the buddy program was reasonable for medical students.

Seventeen students stated that they “strongly agreed” with interest in the buddy program, with an additional twenty-three merely “agreeing.” These groups combine to 54% of the survey participants being interested in the buddy program. The seventeen students in the “strongly agree” category were well-dispersed among classes, with four students in each of the MS I, III, and IV classes and five students in the MS II class. This interest across classes suggests that the program would be sustainable if implemented. While developing this program, it was suggested by several members of the faculty at University of Arizona and Phoenix Children’s Hospital that the pilot year of the program be geared towards a group of 10 or less. The survey is encouraging in that it suggests that this goal of 10 medical student participants would be met.

The proposed buddy program would require 4 hours for a face-to-face meeting each month, and 15-30 minutes for communication via mail, email, or phone

each week. The total time commitment would be about 6 hours a month, average to 1.5 hours a week. According to our survey, 64 (86.5%) participants felt that this time commitment was reasonable. In fact, 47 (63.5%) students were already participating in extracurricular activities for more than 2 hours a week. In addition, 41 (55.4%) students were participating in extracurricular activities once a week or more. Not surprisingly, it would be difficult for students in their third year to participate in this program. Twenty-six percent of third-year students reported no participation in extracurricular activities, and sixty percent reported either no participation or less than 2 hours of participation a week. While the buddy program will have to compete with other extracurricular activities for student time, this survey shows that students during their basic science and fourth years do have enough time for extracurricular activities to participate in this program. Furthermore, it is possible that if students commit to a program such as this one, they will find time to participate even during their busy months.

There are several weaknesses of this study. For one, the survey was voluntary and does not represent a random sample of students. The survey was available to all students and there was no incentive for participating. It is possible that students who have more time or who are more interested in extracurricular activities are more likely to have participated in the study. This sampling bias as well as the small sample size made it futile to perform

further statistical analyses. Another potential confounding factor is that the students were aware who was conducting the study, and while the students' responses were anonymous, this knowledge could have influenced their responses. Finally, it is difficult to extrapolate interest in joining the buddy program to actual commitment to the program.

5.4 Conclusion

The results of the survey are encouraging for the feasibility of implementing the buddy program. The survey suggests that there is enough student interest to start a pilot program with a group of 10 or less students. Ideal participants would be students in their first or second years of medical school, as they have less experience with chronic illness (thus, more to learn) and more time for extracurricular activities during this stage of their training. The prospect of such a program was welcomed during my discussions with physicians and the Institutional Review Board at Phoenix Children's Hospital, and I believe that it is a worthwhile program for the Pediatric Interest Group at UACOM-Phoenix to organize with the help of the UACOM faculty at Phoenix Children's Hospital. It is my hope that after an initial pilot program, the program will be evaluated through the methods previously described and continually improved. This program has the potential to fill a training gap for medical students in the area of pediatric chronic illness,

while providing pediatric patients with a unique source of friendship and support.

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Design, Evaluation, and Feasibility of a Pediatric Mentoring Program

Ruth Chiang

Abstract

Chronic illness can have a significant impact on a child's psychological and social wellbeing. Although children and their families seem to adapt to chronic health conditions, epidemiologic studies suggest these same children display twice as much emotional distress as their peers. One intervention that may improve a child's psychosocial wellbeing is a "buddy program" where children are paired with a chronic illness peer. Studies suggest that one-on-one mentoring promotes better social, academic, and behavioral outcomes, and some follow-up studies suggest these children are more likely to seek medical care. The purpose of this study is to design and evaluate the feasibility of a mentoring program between pediatric chronically ill patients and medical students at the University of Arizona College of Medicine - Phoenix Campus.

Mentoring Program Design

Mentoring Program Design

Student-Parent Pairs: Shared interests and characteristics are reliable predictors of a strong mentor-mentee relationship. Additionally, while shared interests help in the formation of a new relationship, shared characteristics are not necessary. There is no evidence the same gender mentor-mentee pairs form stronger relationships than mixed-gender pairs. Interests and characteristics are more important than gender or race.

Prior to beginning the program, students and patients will fill out a survey regarding their interests. Patients will be matched with a student with similar interests. Students will be matched with a student with 2 of the same interests, and so on. If a patient shares the same degree of interests with more than one student, the student whose interests are closest to the patient will be matched with the patient.

Activities: Mentoring activities will have different ability and functional levels, so the medical students will have to discuss meeting locations and activities with their buddies' parents. They may choose to meet at the family's home, or at a designated community meeting place. Potential meeting locations and activities include: parks, arcades, board games, Diamondback games, parties, arcades, board games, cooking/baking, etc.

Feasibility of Mentoring Program

Feasibility of Mentoring Program

Survey administration was via Survey Monkey® on college student website familiar to the students. Participants were recruited via email sent to class listservers. There was a response rate of 44.5% across classes. 41 first-year and 21 second-year students (45.8%), first-year students (37.5%), and third-year students (13.7%).

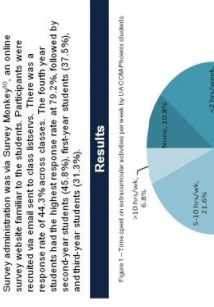


Figure 1 - Time spent on extracurricular activities per week by UOAH Phoenix students.

Figure 2 - Frequency of participation in extracurricular activities per week by UOAH Phoenix students.

Results

Students answered the following question: "How you had any previous experience with pediatric chronic illness? If yes, please describe briefly." There were a wide range of responses, including AIDS work in Africa, raising children or siblings with chronic illness, and personal childhood illnesses. 39 (52.7%) students had no previous experience with pediatric chronic illness.

Discussion: The aim of this survey was to assess the feasibility of the mentoring program. The results of the survey indicate student interest in implementing the mentoring program, and that the program was reasonable for medical students. Fifty-four percent of the survey participants were interested in the mentoring program. The seventeen students in the mentoring program were interested in implementing the program, suggesting that the program would be sustainable if implemented.

The proposed mentoring program would require about 6 hours a month, averaging to 1.5 hours a week. According to our survey, 64 (86.5%) participants felt that this time commitment was reasonable for medical students. In addition, 41 (54.4%) students were participating in extracurricular activities once a week or more.

Not surprisingly, it would be difficult for students in their third year to participate in the program. Twenty-six percent of third-year students reported no participation in extracurricular activities, and 24% of second-year students reported less than 2 hours of participation a week. While the mentoring program will have to compete with other extracurricular activities, including club activities and other school activities during their basic science and fourth years, do have enough time for extracurricular activities to participate in this program.

Conclusions: The results of the survey are encouraging for the feasibility of implementing the mentoring program. The survey suggests that there is a strong interest in participating in the program among students in their first or second years of medical school, as they have less experience with chronic illness (thus, more time for training). This program could potentially fill a training gap for medical students in the area of pediatric chronic illness, while providing pediatric patients with a unique source of mentorship and support.

Objectives:

1. Provide the pediatric patients with:
 - A buddy who can provide emotional and emotional support and companionship between medical visits
 - A friend who visits and accompanies them during medical visits
 - An opportunity to gain insight into pediatric patients' experiences and understand their medical visit, but does not participate directly in their medical care.
2. Provide the medical students with:
 - An opportunity to gain insight into pediatric patients' experiences and understand their medical visit, but does not participate directly in their medical care.
 - An opportunity to gain insight into pediatric patients' experiences and understanding from these experiences

Methods:

I used PubMed and the general search terms "mentoring," "buddy," "students," and "healthcare workers" to search literature relevant to the topic. I designed a tentative program design based on a previous literature review of research regarding design of effective mentoring programs for children.

Potential Participants:

1. Male or female pediatric patients of Phoenix Children's Hospital aged 8-17 and diagnosed with a chronic pediatric condition in defined as a condition that lasts greater than 3 months and affects daily functioning.
2. Parent/guardians of children with a chronic condition
3. Medical students enrolled at the University of Arizona College of Medicine - Phoenix Campus.

Time Commitment: Students and children in the mentoring program will participate in an initial training session, after training they will meet once a week and contact each other once a week via phone, text, or mail. The training session will be 4 hours long, and consist of initial training, 4 hours/month for face-to-face meeting(s), and 15-30 min/week for communication between pediatric patients and mentors via text, phone, or mail. I will pair students and patients for one year.

Research Method

74 medical students at the University of Arizona - Phoenix participated in this study. Participants were recruited via an advertisement in the Phoenix Children's Hospital lobby. The study was voluntary and no incentives were offered for participation. Participants included 18 first-year students (24.3% of participants), 22 second-year students (29.7%), 16 third-year students (21.6%), and 18 fourth-year students (24.4%). There were 35 (48.6%) male participants and 37 (51.4%) female participants.

An Extracurricular Activities Survey assessed the current extracurricular commitments of medical students and their interest in joining the mentoring program. The survey included questions regarding demographic information, estimated time requirements, and collected data regarding demographic (year in school, gender, career choice), current extracurricular activities, interest in the mentoring program, interest in participating in the mentoring program, and interest in pediatric chronic illness, pediatric chronic illness, and interest in the mentoring program.

Objectives

The objectives of the medical student survey are to:

1. Determine current/extracurricular activities
2. Determine previous experience with chronic illness and pediatric chronic illness
3. Determine interest in participating in a pediatric mentoring program

Frequency of Participation in Extracurricular Activities

Table 1 - Interest in participation of extracurricular activities by UOAH Phoenix students, categorized by year in medical school. High percentages show students are interested in participating in extracurricular activities.

Figure 2 - Frequency of participation in extracurricular activities per week by UOAH Phoenix students.

Conclusions: The results of the survey are encouraging for the feasibility of implementing the mentoring program. The survey suggests that there is a strong interest in participating in the program among students in their first or second years of medical school, as they have less experience with chronic illness (thus, more time for training). This program could potentially fill a training gap for medical students in the area of pediatric chronic illness, while providing pediatric patients with a unique source of mentorship and support.

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