

Completion of Client Navigation Goals Following Participation in a Student-Led Patient Navigator Program

Ashna Shah^{1*}; Deepa Ravindra^{1*}; Drupad Annapureddy MD¹; Shyamal Waghwal¹; Shelley Speed
MSN²; Nora Gimpel, MD^{1,2}

1. The University of Texas Southwestern Medical School, Dallas, TX
2. Department of Family and Community Medicine, UT Southwestern Medical Center, Dallas, TX

*: Indicates Co-First Authorship

Emails: Ashna.Shah@utsouthwestern.edu, Deepa.Ravindra@utsouthwestern.edu,
Drupad.Annapureddy@utsouthwestern.edu, Shyamal.Waghwal@utsouthwestern.edu,
Shelley.Speed@utsouthwestern.edu, Nora.Gimpel@utsouthwestern.edu

Corresponding Author:

Ashna Shah, ashnashah31@gmail.com

The University of Texas Southwestern Medical School, Dallas, TX

Abstract Word Count: 218, Manuscript Word Count: 1165, Tables: 2

Acknowledgements: We would like to thank all student navigators involved in PNP over the years for their work in helping improve our clients' lives. We would also like to thank the staff at the Union of Gospel Mission shelters for their valuable partnership and continued efforts. All authors contributed equally to the preparation of this manuscript.

Conflict Disclosure: The authors declare they have no competing interests.

ABSTRACT

Background: Patient navigation is a service that helps underserved populations maneuver through complex healthcare systems. The Patient Navigator Program (PNP) was developed to provide services for persons experiencing homelessness (PEH) utilizing medical students trained as patient navigators. This study investigates client navigation goal completion and considers if patient navigators are inadequately trained.

Methods: With navigator assistance, clients completed a survey on goal outcomes following completion of their navigation cycles. Goal completion status and category goal type were extracted from all clients completing the survey to determine frequency of goal completion. Comparison of healthcare vs. non-healthcare goal completion was conducted using a chi-squared analysis.

Results: 55 of 81 (67.9%) total client goals were successfully completed, including 24 of 34 (70.6%) healthcare goals and 31 of 47 (66.0%) non-healthcare goals. There was no statistical difference between frequency of healthcare and non-healthcare goal completion ($p=0.660$). The average number of goals created per client were 2.13 healthcare, 2.94 non-healthcare, and 5.06 overall. The average number of goals completed per client were 1.5 healthcare, 1.94 non-healthcare, and 3.44 overall.

Conclusions: Our study revealed high rates of client goal completion for clients completing their navigation cycles. Multiple goals completed per client and similar frequency of healthcare and non-healthcare goal completion suggest that PNP's training elective adequately prepares students to provide healthcare navigation.

INTRODUCTION

Patient navigation assists disadvantaged populations by guiding them through the complex healthcare and benefits system. Navigators assess the needs of their clients and connect them with resources specific to domains such as primary and specialty care, transportation, and other financial barriers.¹

Persons experiencing homelessness (PEH) encounter disproportionately worse health outcomes and have been known to benefit from patient navigation in the past.^{2,3} With hopes to support PEH in the Dallas area and prepare medical students to advocate in this capacity, the Patient Navigator Program (PNP) at the University of Texas Southwestern Medical School was established. The program begins with a semester-long training elective course, which provides first-year medical students with weekly sessions on topics relevant to patient navigation for PEH including barriers faced in acquiring care, healthcare systems navigation, social determinants of health, current resource landscapes, and cultural humility.⁴

Following course completion, trained medical students may serve as patient navigators for PEH for up to three 15-week patient navigation cycles over one calendar year. Navigators support clients in identifying approximately six SMART goals and work to connect them with required resources during weekly meetings. Common goals include acquiring primary and specialty care services, health coverage, identification documents, housing, and transportation.

While previous studies have investigated student navigators' self-perceived improvement of skills and knowledge following involvement in PNP, outcomes of client goals and the ability of student navigators to help clients complete their goals have yet to be explored.^{4,5} Inadequate data also exists on the ability of student navigators to provide healthcare guidance and resources.

While high goal completion cannot be attributed solely to student navigator proficiency given the impact of other confounding variables, poor goal completion would be expected if students were inadequately trained and thus unable to effectively assist their clients.

The purpose of this study is to determine client goal outcomes, including comparison of healthcare and non-healthcare goal completion, following involvement in PNP and consider whether student navigators may be inadequately trained for their roles. The findings from this study would help strengthen the literature on PNP's navigational and program educational success.

METHODS

Instrument and Participants:

Student navigators help clients complete a survey through REDCap (Vanderbilt University) prior to and following completion of their navigation cycle. This client survey collects data on client demographics as well as navigation goal completion status following program participation. All clients are residents at the Union Gospel Mission shelters, Center of Hope and Calvert Place, which are located in Dallas, TX. This study has been approved by the UT Southwestern Medical Center institutional review board.

Outcomes:

SMART (Specific, Measurable, Achievable, Resource Based, and Time-Bound) goal status and category for self-determined navigation goals were gathered for all clients completing the survey between spring of 2021 and spring of 2024. Common types of categories included access to primary care, access to specialty care, social determinants of health, transportation, financial assistance, and career goals (Table 1). Subsequently, goals in the first two categories were then grouped into a “healthcare goal” category with all remaining goals grouped into a “non-healthcare goal” category for analysis.

Demographics were summarized by determining the mean for numerical variables and proportions for categorical variables. Mean numbers of total goals, healthcare goals, and non-healthcare goals created and completed per client were calculated. The percentage of SMART goals completed was also calculated for total goals, healthcare goals, and non-healthcare goals. A chi-square analysis was conducted to investigate the differences in the proportions between the healthcare and non-healthcare goals. The α value was set at 0.05, and P values $<.05$ were considered significant.

RESULTS

A total of 81 navigation goals were created by 16 clients over 3 years. Out of 16 total clients surveyed, 13 (81%) were female, and the average age was 37 years old. Regarding education, six clients (38%) reported their highest level of education as high school, seven (44%) reported it as some college, and two (13%) reported it as completing college.

With regards to goal completion, 55 of 81 total goals (67.9%) were completed by the end of a 15-week patient navigation cycle. 24 of 34 (70.6%) healthcare goals created were completed, while 31 of 47 (66.0%) non-healthcare goals created were completed. The difference between these proportions was not significant ($p=0.660$). The average number of total goals, healthcare goals, and non-healthcare goals created and successfully completed per client are depicted in Table 2. Notably, all clients completed at least 1 of their goals during the 15-week cycle.

DISCUSSION

The results from our study yielded several interesting findings. Overall, the successful completion rate for client goals was high. Multiple goals were accomplished per client on average, including all clients accomplishing at least one goal. Together, these two findings indicate that our student navigators' efforts helped clients that completed their navigation cycles to reach their goals.

Our study found comparable rates of completion for healthcare goals vs. non-healthcare goals. Theoretically, the skills required to help clients achieve non-healthcare goals, such as obtaining identification and housing in the US, are skills our student navigators likely already previously possessed. However, skills related to healthcare goals such as applying for Parkland Financial Assistance, Dallas County hospital's fee assistance charity program, setting up medical appointments, and addressing barriers disadvantaged populations face may be less frequently possessed.^{6,7} For this reason, our program intentionally covers these topics in depth as part of its training elective.⁴ The similar success of clients in accomplishing healthcare vs. non-healthcare

goals, in the context of overall high rates of goal completion, suggests that the PNP training elective does not inadequately prepare student navigators in providing guidance on appropriate healthcare resources and navigating clients through health systems. These findings support those from previous studies investigating student navigators' self-perceptions on skills and knowledge following participation in the training elective and navigation fellowship.^{4,5} Nevertheless, student navigator preparedness is not the only factor which may be related to client goal completion—adequate navigator training is likely one of multiple contributory variables.

While our findings point towards high client goal completion, there are significant limitations to our study to consider. First, our modest sample size of 81 goals minimized statistical power and the conclusions we could draw. Secondly, goals are individually determined and thus not standardized. Varying difficulty in accomplishing different goals may influence the likelihood of completion within 15 weeks. Additionally, in keeping with the ethical obligation to provide all clients with trained navigators, no control group was used. Lastly, clients who have completed their cycles may be better equipped, financially or educationally, or may be more motivated to achieve their goals. This may confound outcomes. However, even after considering these limitations, the findings from our study are encouraging regarding our PNP program's ability to assist clients.

CONCLUSIONS

Our study revealed high rates of completion of client navigation goals following participation in a student-led patient navigator program. Multiple goals completed per client on average and similar rates of healthcare and non-healthcare goal completion suggest that our program's

training elective adequately prepares students in providing healthcare navigation. High client goal completion may be in part due to patient navigator training.

DRAFT

TABLES

Table 1. Goal Categorization and Stratification of Healthcare vs Non-Healthcare Goals

Health Care Goal Examples	Non-Health Care Goal Examples
• Gain Access to Primary and/or Specialty Care • Finding a Primary Care Physician • Acquiring Dental Care • Apply for Parkland Financial Assistance (Dallas County Hospital Financial Assistance Program) • Seeking Counseling and Mental Health Support	• Housing Access • Finding Employment • Transportation • Obtaining Identification Cards and Birth Certificates • Seeking Legal Aid • Applying for Future Education (GED, Certifications)

Table 2. Client Goals and Completion for All Clients (n=16) from Spring 2021-Spring 2024

	Healthcare Related Goals	Non-Healthcare Goals	Total
Created Goals	34	47	81
Completed Goals	24	31	55
Average Goals Created Per Client	2.13	2.94	5.07
Average Goals Completed Per Client	1.5	1.94	3.44

REFERENCES

1. Valaitis RK, Carter N, Lam A, Nicholl J, Feather J, Cleghorn L. Implementation and maintenance of patient navigation programs linking primary care with community-based health and social services: a scoping literature review. *BMC Health Services Research*. 2017;17(1). doi:<https://doi.org/10.1186/s12913-017-2046-1>
2. Stafford A, Wood L. Tackling Health Disparities for People Who Are Homeless? Start with Social Determinants. *Int J Environ Res Public Health*. 2017;14(12):1535. Published 2017 Dec 8. doi:10.3390/ijerph14121535.
3. Carmichael C, Smith L, Aldasoro E, et al. Exploring the application of the navigation model with people experiencing homelessness: a scoping review. *Journal of Social Distress and Homelessness*. Published online January 9, 2022:1-15. doi:<https://doi.org/10.1080/10530789.2021.2021363>
4. Liu A, Suarez A, Kak A, et al. Training Students as Navigators for Patients Experiencing Homelessness. *Fam Med*. 2023;55(1):45-50. doi:10.22454/FamMed.55.143409
5. Annapureddy D, Teaw S, Kumar P, et al. Assessing Educational and Attitudinal Outcomes of a Student Learner Experience Focused on Homelessness. *Fam Med*. 2024;56(1):30-34. doi:10.22454/FamMed.2023.112960
6. Qua K, Gullett H, Wilson-Delfosse A, Thomas P, Singh M. Early medical students' experiences as system navigators: results of a qualitative study. *J Gen Intern Med*. 2022;37(5):1,155-1,160. doi:10.1007/s11606-021-07168-8
7. Gonzalo JD, Wolpaw D, Graaf D, Thompson BM. Educating patient-centered, systems-aware physicians: a qualitative analysis of medical student perceptions of value-added

clinical systems learning roles. *BMC Med Educ.* 2018;18(1):248. doi:10.1186/s12909-018-1345-5

DRAFT