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## Big Sister Big Brother Pilot Program: A Novel Resident Mentorship Project

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### ABSTRACT

**Introduction:** Transition from medical school into residency is difficult, particularly for foreign medical graduates (FMGs). Early career mentoring is known to be beneficial. Although mentorship is encouraged, formal programs are seldom in place and are often ineffective. **Objective:** To study the impact of resident driven mentorship program (Big Sister Big Brother Program) in improving medicine residency experience of new interns. **Methods:** The study was conducted in the Internal Medicine Residency Program in University of Oklahoma Health Sciences Centre between September 2012 and October 2013. Residents were assigned with incoming interns on 1:1 basis to act as their mentors. Residents were to meet with the interns every month and address their concerns in an informal atmosphere. We developed a 17-item questionnaire to assess participants' perceptions, satisfaction and experience with mentorship. **Results:** Overall 61% respondents were males and 43% were Caucasian. Majority (61%) were categorical internal medicine and 45% were FMGs. Only 57% interns reported satisfaction with mentorship and 60.5% said the transition was easy with respect to personal life. After introduction of mentorship program, interns reported improvement in ease of transition with respect to personal life (OR 4.5, CI 1.1–18.4), which was more pronounced in FMGs (OR 10.5, CI 1.1–98.9). Intern class also reported improvement in ease of approaching mentor (OR 4.5, CI 1.1–18.1). **Conclusion:** In traditional faculty driven mentorship, accessibility to faculty is the biggest hindrance. Our study showed resident mentors have a positive impact on quality of life, ease of approaching mentors, and improve comfort level of new interns. This is especially beneficial for FMGs who have to adapt to new culture, and workplace. We have formally incorporated this program into our orientation curriculum.

**Keywords:** *Mentorship, Internal medicine, Foreign medical graduate, Big Sister Big Brother program, Residency*

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## INTRODUCTION

There is no standard definition of the term “mentor”. According to one study there are at least 20 definitions that appear in literature (1). Although the term has been used for a “role model”, the meaning of the two words is different. Mentoring is an active process which involves a direct bond between a mentor and a mentee while role modelling refers to a more passive process (2). Mentoring requires a greater time commitment as compared to role modelling limiting the number of mentees a mentor can handle at a given time (2).

The transition from medical school into residency is difficult, from both a professional and personal perspective. This is particularly true for foreign medical graduates as they must transition not only to a new medical system, but also to a new country and culture (3). Early mentoring has beneficial effects on development of professional expertise, combating burnout, improving job satisfaction, and enhancing transition to a successful career (4, 5).

Although mentorship is often encouraged in residency programs, formal mentorship programs are seldom in place (4). Traditionally faculty mentorship has been the mainstay of formal mentorship programs in which a resident is assigned to a faculty to serve as their mentor (6). However satisfaction with this system remains low and residents cite availability of faculty and inability to choose their mentors as the biggest drawbacks (4, 7).

Big Sister Big Brother model of mentorship has been successfully used outside the medical system and has consistently shown to have a positive impact on academic performance and peer relationship (8, 9). However, this model of mentorship is not widely adapted or studied in residency training programs.

Our aim was to introduce a supervised peer mentorship system based on the Big Sister Big Brother model with a goal to increase

communication and comfort for new interns while enabling them to provide improved patient care.

## METHODS

Our study was conducted within the Internal Medicine Residency Training Program at the University of Oklahoma Health Sciences Centre from September 2012 through October 2013. Internal medicine residency in the US is a three year training program and first year trainee are referred to as interns and second and third year trainees are referred to as residents. In our residency program all incoming interns are traditionally assigned to a faculty member to act as their mentor. The interns meet with the assigned faculty member on an average of once every six months. For the purpose of our study, all incoming interns (total of 28) were matched with an upper level resident on a 1:1 basis to act as their mentors. An effort was made to match the resident based on gender, country of origin, extra-curricular and curricular (fellowship) interests and marital status wherever possible. Participation in the program was voluntary and only residents who expressed interest were included. Assignment emails were sent to new interns and upper level residents three months prior to starting residency.

Residents were encouraged to contact the incoming interns one month prior to residency and meet with them in an informal setting one week before starting residency and every month thereafter to address any questions or concerns the intern may have. They would also, if possible, show them around the city. Direct contact information was provided to the interns to enable them to directly contact the resident mentor with questions, work related or otherwise. The authors developed a 17 items questionnaire to assess participant’s basic demographics (age, gender and medical school location), prior experience with mentorship, perceived positive and negative impacts of mentorship, and future ways to

improve this program. The study population was internal medicine residents at University of Oklahoma Health Sciences Centre.

The questionnaire was distributed to the intern class six months into their residency before and after the introduction of the Big Sister Big Brother mentorship program. Survey design and data collection was done using Google Docs, a web based survey tool. All responses were anonymised. The results were compiled into an Excel spread sheet and statistical analyses were performed using MedCalc for Windows, version 16.4.3. The study was exempt from Institutional Review Board (IRB) approval and consent to participate was assumed when participants responded to the questionnaire.

## RESULTS

Out of 56 residents surveyed, 38 responded with a response rate of 67.8%. The response rate was 61% and 75% in the pre and post intervention groups, respectively. Overall, 61% of interns were males and 43% were Caucasian. Majority (61%) of interns were categorical internal medicine and 45% were foreign medical graduates.

Only 57% of interns reported satisfaction with mentorship and 60.5% reported the transition was easy with respect to personal life. Most of the interns were not comfortable operating in the hospital (60.5%). When asked about the biggest barrier to seeking mentorship, most residents (68%) reported “I never thought about approaching someone”. The top three positive aspects of mentorship listed by both groups were “advice on professional development” (69.2%), “career counselling” (64.1%) and “advice on clinical work” (64.1%).

Regarding negative impact of mentorship, “not comfortable discussing important issues” and “felt I was imposing on mentor” was mentioned by 60.5% and 50% of interns respectively.

After introduction of our mentorship program, interns reported an improvement in the ease of transition with respect to personal life from 41% to 76% (OR 4.5, CI 1.1–18.4). This effect was more pronounced in foreign graduates, improvement from 25% to 78% (OR 10.5, CI 1.1–98.9). There was an improvement in satisfaction with mentorship from 35% to 76% (OR 5.8, CI 1.4–24.1) and ease of approaching mentor from 35% to 71.4% (OR 4.5, CI 1.1–18.1).

Some of the suggestions for improving the program included having a second resident available as a backup, making this a permanent part of internal medicine training and making resident mentorship program available to other specialties.

## DISCUSSION

The transition from medical student to intern is a stressful time with a steep learning curve and intense professional and personal stressors. This is heightened if trainees are coming from a different health care system and culture. In our study, we found that in a traditional faculty driven mentorship program, residents often cited accessibility to faculty as the biggest hindrance to mentorship. However, our study showed that a resident driven mentorship program could have a positive impact on quality of life, ease of approaching a mentor, and improving the comfort level of interns starting a new residency program. Although most programs encourage interactions between incoming interns and residents, we feel formally assigning resident mentors reinforces this interaction.

Big Sister Big Brother mentorship model has been successfully used in the non-medical setting and has shown to have a positive impact on academic progress and peer relationship (8, 9). Our study proves that this hold true for the residency training programs as well and can be used as an effective tool to establish a professional relationship early on, and helps interns

transition in the first few anxiety filled months of residency.

Traditionally, we have had a mix of residents where half are US medical school graduates and half are foreign medical graduates in our residency program. The foreign medical graduates come from all over the world and have adapt to a new locale, culture, and workplace. It is well known that minority groups and foreign graduates have an increased hesitancy in approaching faculty mentor and are less likely to receive adequate mentoring (10). In our study, we found that foreign graduates reported a greater improvement in “ease of transition to residency” making the Big Sister Big Brother mentorship program a particularly effective tool in improving the experience of foreign medical graduates.

Our program continues to assign faculty mentors to all interns who follow with the resident throughout his or her residency, help them grow on a professional and personal basis. Resident mentors are not meant to replace faculty mentors, but aid them, and address concerns interns in a more friendly environment.

Limitations of our study include a small sample size, single institution and potential for recall bias which can affect the generalisability of results. We would advocate conducting a multicentre follow-up study to examine the effect of resident driven Big Sister Big Brother mentorship program on improving the residency experience.

## CONCLUSION

Our study showed resident mentors have a positive impact on quality of life, ease of approaching mentors, and improve comfort level of new interns, making it easier for them to approach mentors. This is especially beneficial for FMGs who have to adapt to new culture, and workplace. Given these results, we plan to formally incorporate this program into our

orientation curriculum and encourage other institutions to consider similar measures.

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