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HSCT in 2020
System Capacity Initiative

Hematopoietic Stem Cell Transplantation System Capacity Initiative: Physicians' perception of the current workforce environment

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SIGNIFICANCE AND BACKGROUND

More than 20,000 hematopoietic stem cell transplants (HSCT) are performed in the US annually, and this number is expected to increase. System challenges to the future growth of HSCT include a shortage of physicians skilled in the performance of HSCT. A study was undertaken to assess the current workforce environment in order to inform recommendations regarding the workforce shortage.

SURVEY OBJECTIVES

- To identify the challenges in assuring adequate physician-level staffing for HSCT needs nationally over the next 10 years
- To characterize factors influencing retention and job satisfaction

METHODS

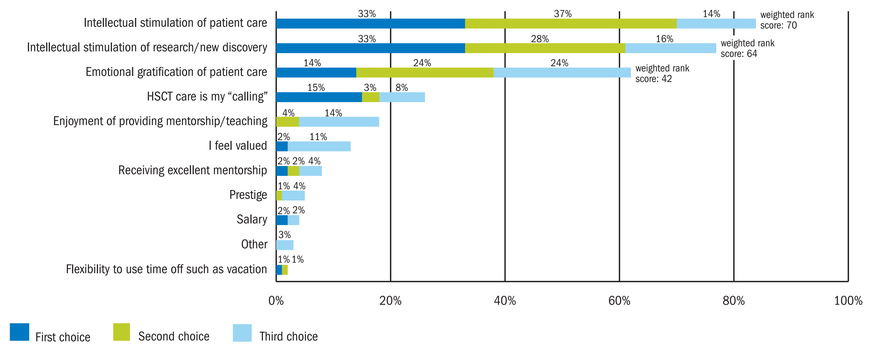
- This study utilized a 36-item cross-sectional survey design. Primary data was collected via internet survey from July 16 – August 5, 2010
- The survey invitations were emailed to American Society for Blood and Marrow Transplantation (ASBMT) physician members
- Descriptive analysis and weighted rank scoring was performed using SPSS

FINDINGS

The survey was sent to 1,317 HSCT physician members with a response rate of 9% (N=112; Table 1)

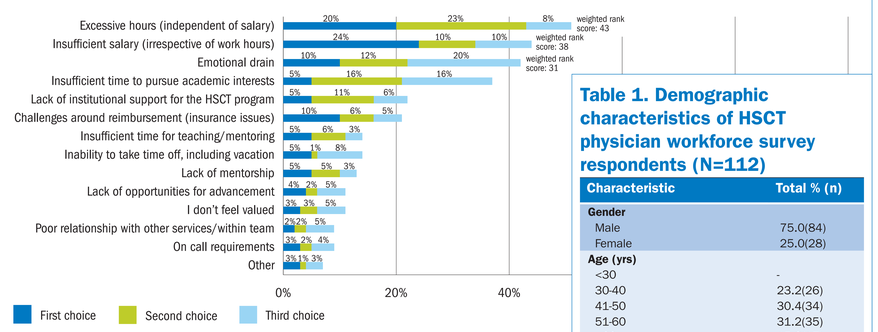
- Overall, HSCT physicians are satisfied with their career choice
- Intellectual stimulation and emotional gratification are the most rewarding aspects of an HSCT career (Figure 1)
- The majority of respondents identified excessive work hours as the least satisfying aspect of a career in HSCT; salary and emotional drain also drive dissatisfaction (Figure 2)
- This respondent group spends approximately 51% of their time in direct patient care; respondents would prefer to spend more time conducting clinical research as well as teaching and/or mentoring
- Most HSCT physicians support the utilization of advanced practice professionals, which is one strategy for addressing workforce shortages

Figure 1. Aspects of HSCT physicians' career ranked as most satisfying (n=112)



Note: Respondents were asked to select 1st, 2nd and 3rd most satisfying choices among aspects. Weighting the ranks: 1st choice = 1.00 point; 2nd choice = 0.66 point; 3rd choice = 0.33 point. The weighted rank score is equal to the sum of points for each aspect.

Figure 2. Aspects of HSCT physicians' career ranked as least satisfying (n=112)



Note: Respondents were asked to select 1st, 2nd and 3rd least satisfying choices among aspects. Weighting the ranks: 1st choice = 1.00 point; 2nd choice = 0.66 point; 3rd choice = 0.33 point. The weighted rank score is equal to the sum of points for each aspect.

Figure 3. Where HSCT physicians expect to be in 1–3 years (n=112)

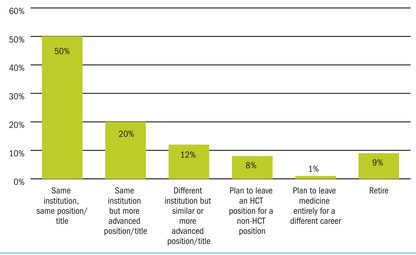


Table 1. Demographic characteristics of HSCT physician workforce survey respondents (N=112)

Characteristic	Total % (n)
Gender	
Male	75.0(84)
Female	25.0(28)
Age (yrs)	
<30	-
30-40	23.2(26)
41-50	30.4(34)
51-60	31.2(35)
>60	15.2(17)
Years in HSCT practice	
0 (still in training)	-
1-2	11.6(13)
3-5	16.1(18)
6-10	11.6(13)
11-15	8.0(9)
>15	52.7(59)
Transplant center size*	
Small	27.6(31)
Medium	37.5(42)
Large	33.9(38)
Unknown	1.0(1)
Region of US	
Northeast	23.2(26)
Midwest	26.8(30)
South	29.5(33)
West	20.5(23)
Patient population	
Adults	48.2(54)
Pediatrics	24.1(27)
Both	27.7(31)

*Small: ≤50 transplants/year.
Medium: 51-150 transplants/year.
Large: >150 transplants/year.

CONCLUSIONS AND WORKING GROUP RECOMMENDATIONS

1. There is currently a significant HSCT physician staffing shortage:
   - More than half of respondents indicated a current HSCT physician shortage in their institution
   - Within the next three years, the HSCT physician workforce will lose nearly 20% of staff, resulting in a greater shortage (Figure 3)

Recommendations:

- Validate a work-effort benchmark (physician to patient ratio) and implement a national initiative to encourage transplant centers to meet this target
- Obtain quantitative data to predict HSCT physician shortages
- Quantify and provide a listing of HSCT fellowship programs to facilitate access for trainees
- Promote physician recruitment

2. Though a career in HSCT is satisfying, the long hours, salary, and emotional drain may deter clinicians from choosing or staying in the field

Recommendations:

- Increase understanding of the barriers and motivations to choosing a career in HSCT
- Identify barriers due to the current care delivery model
- Assess optimal timing of trainees' initial exposure to HSCT to stimulate interest
- Create an inspiring HSCT curriculum for trainees and identify funding sources for HSCT-specific training

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