How to start and sustain a successful interprofessional student-run free clinic: Linking the classroom to clinical practice

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Learning objectives

Objective 1: Discuss educational research on student-run free clinics (SRFC) including the development of student advocacy and leadership, interprofessional teamwork, and clinical reasoning skills.

Objective 2: Describe an effective model for a SRFC which enhances student leadership and builds community partnerships.

Objective 3: Develop a multi-year roadmap (guide) on how to develop a SRFC program within the participant’s own institution.
Workshop overview

- Background on SRFC
- Examples of models for SRFC, including faculty and student roles
- Research on SRFC
- Brainstorm session
  - Complete environment scan of institution
  - Develop model for own SRFC
  - Share ideas for SRFC models
- Workshop conclusion and questions
Background on SRFC
Student-run free clinics (SRFC) provide health care services at no cost to patients who are uninsured or may not be able to pay for medical or therapy services. Staffed by volunteer students and practitioners.
• SRFCs began in the 1960’s and have increased in number over the last decade.

• There are now more than 145 student run free clinics in the US, as tracked by the Society of Student Run-Free Clinics (Society of Student-Run Free Clinics, www.studentrunfreeclinics.org).
Many patients are routinely treated for chronic illnesses such as obesity, hypertension, diabetes, asthma, high cholesterol, arthritis, depression, and other mental disorders (Darnell, 2010; Notaro SJ, Khan M, Bryan N, et al., 2012).
SRFC offer students an opportunity to translate their classroom learning directly to patient care in the form of experiential service-learning (Sabik & Dahman, 2012; Shrader, Thompson, & Gonsalves, 2010).
MUSC CARES Therapy Clinic
CARES = Community Aid Relief Education Support
Board Structure

- Clinician Schedulers
- Outcomes
- Operations
- Student Schedulers
- Fundraising
- Patient Schedulers
- Public Relations
- EMR
- Clinic Coordinators
Plan of Care

Date of Plan of Care: 12/06/2016
Injury/Dysfunction/Change of Status Date: 10/19/2016 Chronic
New Injury, Pt. o/p physical symptoms s/p L4-L5 spinal fusion in April 2016
Diagnosis: ICD10: M47.22: Other spondylosis with radiculopathy, cervical region
Date of Original Eval: 12/06/2016
Treatment Diagnosis: ICD10: M47.22: Other spondylosis with radiculopathy, cervical region

Assessment
Assessment/Diagnosis: Pt. demonstrated multiple inconsistencies with sensory testing of RUE. Pt. demonstrated potential cognitive impairments which require further testing. RUE web space atrophy is leading to compensatory hand movements in the thumb and can implicate potential ulnar nerve involvement. Pt. seemed to have flat affect at initiation of treatment, but he improved with time. Pt. has good support from girlfriend/wife. Pt. has no shower chair, but the family need to be educated on the importance of a sitter. Pt requires education on safety skills for the home and transfers. Pt will benefit from skilled OT for further neurological testing, strengthening, safety around the house (use of a shower chair) and adaptive technique training.
Pt. Education: Use of stress ball for strengthening of RUE. Pt. educated on home safety, continued use of affected hand in ADLs, and built-up handles.
Following the evaluation and extensive patient education regarding diagnosis, prognosis, and treatment goals, the patient (guardian, power of attorney holder) actively participated in the creation of the current goals and agrees to the current treatment plan.
Rehab Potential: Good

Contraindications to Therapy: None

Patient Problems:
- Sensory impairments (inconsistent)
- Potential cognitive impairments (needs to be evaluated)
- Strength in RUE (hand and wrist)
- Safety in mobility and in ADLs (Showering, Sit-stand, kitchen)
- Handwriting
- Bringing food to mouth

Short Term Goals:
1: (2 Weeks) In 2 weeks, pt will complete bimanual jar opening tasks with minA without compensatory technique 3/5 times.
Research related to SRFC
Recent research related to SRFC

- Students learn a variety of practical skills, patient flow, quality control, and overall health care delivery (Meah, Smith, & Thomas, 2009; Shrader, Thompson, & Gonsalves, 2010).

- Students show increased empathy and compassion for underrepresented patients (Modi, Fascelli, Daitch, & Hojat, 2017; Smith et al., 2014).

- Students show improved interprofessional attitudes, behaviors, and ability to work in teams (Kovalsky et al., 2014; Seif et al., 2014).

- Patients who receive services at SRFC (therapy) show clinically significant improvements on functional measures (O’Brien et al., 2017; Stickler et al., 2015).
Educational Research on CARES Experience

CARES is part of an MUSC interprofessional service-learning experience (Course IP 700)

- IP 700 offered spring and fall semesters
- 50 students enrolled (medical, PA, OT, PT, Pharmacy) each fall and spring
- The participants meet weekly for various lectures, workshops and group discussion
# CARES IP 700 Course – Learning Objectives

## Clinical Reasoning

<table>
<thead>
<tr>
<th>Conduct</th>
<th>Interprofessional</th>
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<tr>
<td>a focused patient history and interview</td>
<td><strong>Contribute</strong> to an interdisciplinary team effort to improve care</td>
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<tr>
<td>Record pertinent information in a standard SOAP note format</td>
<td><strong>Display</strong> skill in communication and collaborative work with health professionals from other disciplines</td>
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<tr>
<td>Perform procedures appropriate to level of training (e.g. ROM)</td>
<td><strong>Describe</strong> how an effective interdisciplinary team functions</td>
</tr>
<tr>
<td>Link clinic patient with the appropriate existing community resources.</td>
<td><strong>Describe</strong> why an interdisciplinary approach is necessary for continuous improvement in health care</td>
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<tr>
<td>Demonstrate community needs as part of a continuous quality improvement project</td>
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*Image courtesy of MUSC Health*
Specific Aim

To examine the service learning experiences of OT, PT, PA, medicine, and pharmacy students who participate in the CARES Clinic and IP 700 course.

- Hypothesis: Students who volunteer at the CARES Clinic and participate in the IP 700 course will demonstrate significant changes in self-reported clinical reasoning skills and interprofessional attitudes in comparison to peers in control group.
Methods

**Design:** Prospective, non-randomized group design

**Participants:**
- **Experimental group:** Students who took the IP 700 course and volunteered at the CARES Medical or Therapy clinics (n=100)
- **Control group:** Students who did not take IP 700 course and may or may not have volunteered at the clinic (n=232)

**Data Analysis:**
- The pre and post-survey data were collected anonymously, but coded so that the data could be paired by respondent.
- Data from two student surveys in the control group were discarded due to inability to obtain post-surveys.
- Questions on each survey met the normality assumption and individual question responses for the pre and post-tests were examined using paired t-tests.
Instruments – pre and post-surveys

Self-Assessment of **Clinical Reflection and Reasoning (SACRR)**

- a 26 item scale rated on a five-point scale ranging from a 5, “strongly agree”, to a 1, “strongly disagree”
  - (Royeen, 2001; Roth, 1989)

**Readiness for Interprofessional Learning Scale (RIPLS)**

- a 19-item questionnaire that uses a 5-point Likert-like scale (1 = strongly disagree, 5 = strongly agree) designed to measure attitudes toward interprofessional teams and readiness for IPE experiences
  - (Parsell, 1999)

**The Interdisciplinary Education Perception Scale (IEPS)**

- an 18-item scale designed to measure student perception and attitudinal change following an experience
  - (Luecht, 1990; Page, 2009)
## Results

<table>
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<tr>
<th></th>
<th>Mean pre-test</th>
<th>SD</th>
<th>Mean post-test</th>
<th>SD</th>
<th>p-value within groups</th>
<th>P-value between groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IEPS overall</strong></td>
<td>91.02</td>
<td>8.43</td>
<td>92.71</td>
<td>7.99</td>
<td></td>
<td>p=0.0112*</td>
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<tr>
<td><strong>CARES class</strong></td>
<td>90.79</td>
<td>8.17</td>
<td>93.36</td>
<td>8.30</td>
<td></td>
<td>P=0.03**</td>
</tr>
<tr>
<td><strong>Non-CARES class</strong></td>
<td>91.14</td>
<td>8.60</td>
<td>92.41</td>
<td>7.84</td>
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<td>P=0.113</td>
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<td><strong>RIPLS overall</strong></td>
<td>78.16</td>
<td>8.22</td>
<td>79.21</td>
<td>8.20</td>
<td></td>
<td></td>
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<tr>
<td><strong>CARES class</strong></td>
<td>80.7</td>
<td>6.86</td>
<td>80.8</td>
<td>7.54</td>
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<tr>
<td><strong>Non-CARES class</strong></td>
<td>77.1</td>
<td>8.39</td>
<td>78.5</td>
<td>8.55</td>
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<tr>
<td><strong>SACCR overall</strong></td>
<td>103.2</td>
<td>9.98</td>
<td>106.0</td>
<td>10.36</td>
<td></td>
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<tr>
<td><strong>CARES class</strong></td>
<td>103.9</td>
<td>10.84</td>
<td>107.3</td>
<td>11.1</td>
<td></td>
<td>P=0.03*</td>
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<tr>
<td><strong>Non-CARES class</strong></td>
<td>102.9</td>
<td>9.55</td>
<td>105.5</td>
<td>9.97</td>
<td></td>
<td>P=0.08*</td>
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Conclusion

Educational experiences at SRFC may improve:

- Clinical reasoning skills
- Empathy and compassion
- Interprofessional attitudes and behaviors
- Confidence working with various patient populations

Learning objectives and activities should be integrated with existing coursework and curriculum
Time for Brainstorming!
Develop your own SRFC
TIME TO SHARE
Contact Information

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Funding provided from the following:

- MUSC College of Health Professions Interdepartmental/Interdivisional/Intercollege Seed Grants
- MUSC Interprofessional Education Pilot Study Grant
- Becky Trickey Educational Grant
References


