Patients Living in Poverty: Physical Therapy Considerations

2016 Combined Sections Meeting

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Patients Living in Poverty

Physical Therapy Considerations

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Disclosures

Cathy Bookser-Feister, PT, DPT, PCS and Kerstin Palombo, PT, PhD disclose that no relevant financial relationship exists for either presenter.

Learning Objectives

1. Identify poverty levels and poverty thresholds.
2. Understand the implications that living in poverty has on incidence of certain health conditions.
3. Examine negative outcomes in physical therapy-related health conditions that are complicated by poverty.
4. Develop solutions for addressing health conditions that are complicated by poverty.
Prior to the Affordable Care Act, most adults and many children living in or near poverty in the US did not have insurance that covered outpatient and rehabilitation PT.

**Prior to the ACA**

**Previous options for coverage:**
- Medicaid-1965
- Emergency Medical Treatment and Active Labor Act—1985—(stabilization only, then discharge)
- CHIP—Children's Health Insurance Program—1997
- Free care from hospital or clinic

**ACA in brief**
- The ACA provided insurance for people with moderate incomes (Marketplace) and an expansion of Medicaid for people with incomes up to 133% of the poverty threshold.
- A Supreme Court ruling made the Medicaid expansion optional for states.
Medicaid Expansion--2015

http://stateforum.org/

ACA and PTs

**Result:** The number of uninsured in the US dropped from 48.6 million in 2010 to 41.0 million in 2014.

Are PTs prepared for this new population?

Case study

Preemie in poverty
ICF model—Where is poverty?

“Health Condition”
(disorder or disease)

Body Functions and Structures

Activities
Participation

Personal Factors

Environmental Factors

Social Determinants of Health

How is poverty measured?

Federal Poverty Levels
- Developed with input from US Department of Agriculture, based on family size
- Include before tax income and tax credits but exclude non-cash benefits such as SNAP (food stamps) and housing assistance.
Federal Poverty thresholds

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Poverty Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>One person</td>
<td>$12,071</td>
</tr>
<tr>
<td>Two people</td>
<td>15,379</td>
</tr>
<tr>
<td>Three people</td>
<td>18,850</td>
</tr>
<tr>
<td>Four people</td>
<td>24,230</td>
</tr>
<tr>
<td>Five people</td>
<td>28,695</td>
</tr>
<tr>
<td>Six people</td>
<td>32,473</td>
</tr>
<tr>
<td>Seven people</td>
<td>36,927</td>
</tr>
<tr>
<td>Eight people</td>
<td>40,968</td>
</tr>
<tr>
<td>Nine people or more</td>
<td>49,021</td>
</tr>
</tbody>
</table>

Source: US Census Bureau

Poverty--quick facts--2013

- 14.5% of the population of the United States, or 43.5 million people, lived in poverty.
- 19.9 million of those had incomes less than 50% of the poverty level.
- 33.9% of US households had incomes less than 200% of the poverty levels.

Poverty by State
Poverty and health conditions

Now let’s consider some studies that look at poverty and its relationship to outcomes in conditions that are common in the world of PT.

Poverty and SCI

From 20 SCI centers:

- low income and low formal education were predictive of increased risk of mortality in adults with spinal cord injury.
- Patients with low income had the highest mortality.
- Patients with high income had the highest rates of survival.

Krause JS, Saunders LL, DeVivo MA, 2011

Poverty and stroke

AVAIL study: looking at disability and death 3 months post stroke

- Odds of disability, death, dependence was increased among those with SES (income, education, occupation)
- Patients with low SES are more vulnerable and can’t compensate
- Need research about interventions to help

Betger, Zhao, Bushness et al., 2014
Poverty and orthopedics

**A prospective, randomized controlled trial** of 108 patients with uncomplicated total hip arthroplasty:

- Socioeconomic factors were more predictive of bad long term outcomes than type of implant or surgical technique.

  Butler, Rosenweig, Myers and Barrack, 2011

Poverty and rheumatology

**Patients with inflammatory polyarthritis**

- Low SES and high learned helplessness were associated with worse outcomes
- The association of SES and poor outcomes lost significance when adjusted for learned helplessness.
- Learned helplessness may be modifiable.

  Camacho, Verstappen and Symmons, 2012

Poverty and cancer

- Low SES is associated with increased risk for and worse outcomes in cancer.
- Across almost all US racial and ethnic groups, the five year survival rate for cancer was more than 10% lower for persons who lived in poorer areas.

  Ward E, Jemal A, Cokkinides V, Singh GK, et al., 2004
Poverty and heart disease

AHA report, 2012
• Low education and low SES: risk factors for developing HTN.
• > half of US adults from families with incomes under $10,000/year have two or more risk factors for heart disease and stroke.
• Incidence of stroke and coronary heart disease increase with decreased income.

Poverty and heart transplants
• Low SES is associated with worse short and long term outcomes in children needing heart transplants.
• Low SES: higher chance of death while waiting for the transplant
• Increased hazard ratio for low SES = risk of having mechanical ventilation.


Same risk?
Poverty and children’s brains

• Poverty in early childhood was associated with decreased brain volume (cortical white and gray matter, hippocampus and amygdala) in school aged children.
• Hippocampal volumes were affected by caregiver support or hostility.

Luby J., Belden A., Botteron K. 2013

Poverty and children’s brains

• Young children with traumatic brain injuries are more likely to be in low income families, increasing the difficulty of ongoing care.

Keenan, Hooper, Wetherington et al, 2007

Poor choices? Or more?

• Higher incidences of risky behaviors—diet, smoking, substance abuse, inadequate exercise—are associated with poverty.
• But... advising people to change their health behaviors without considering what put them at risk of risks will be ineffective.
Causal Relationships

**Poverty and Health:** A complex relationship

It’s true that poor health status can lead to lower SES within one generation and across generations, for severely disabling diseases.

**BUT….for the most part…**

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POVERTY

↓

POOR HEALTH

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Causal Relationships

**Structural theory:** Structural determinants of health (such as access, environment, low income) are the initial causes of poor health outcomes in those with low socioeconomic status.

Socioeconomic conditions are the upstream force that puts people at higher risk of other health conditions.
Poverty affects access

Poverty affects access to preventative and curative medical care, to health information, and to factors that might limit the effects of stress.

Poverty and allostatic load

Poverty causes increased acute and chronic stress, which can damage the nervous, endocrine, cardiac, and musculoskeletal systems. Increased "allostatic load"

Three upstream factors

- Food insecurity
- Housing issues
- Literacy / health literacy
Food insecurity

• **17.5 million of the households** in the US had food insecurity: due to lack of resources, difficulty providing enough food for household members.
• 42.1% of households below the federal poverty level and 34.8% of households below 185% of the poverty level did not have food security.

Food insecurity

• Very low food security: 6.8 million US households
• The conditions of decreasing food intake or disruption of eating patterns were repetitive, occurring in 1-7 days of the month.

Food insecurity

• Persons with very low food security worried that their food would run out before they had money to buy more. Adults sometimes did not eat for a whole day because there was not enough money for food.

*How would this affect attendance at therapy appointments?*
*Exercise tolerance? Mood?*
### Food insecurity and children

- Young inner city children with food insecurity were more likely to have poor health and to have been hospitalized.

  Cook JT, Frank DA, Berkowitz C, et al., 2004

### Housing/food insecurity

- A national survey of 16,651 low-income adults
- Housing instability and food insecurity were each independently associated with postponing medical care and medications, increased emergency department use, and hospitalizations.


### Health Literacy

- The degree to which individuals have the capacity to obtain, process, and understand the basic health information and services needed to make appropriate health decisions

Health literacy is the interaction of...

- Culture
- English proficiency
- Basic literacy

Health Literacy

Four types of literacy impact health literacy

- Fundamental literacy
- Scientific literacy
- Civic literacy
- Cultural literacy

Who is at risk for limited health literacy?

- Older adults
- Racial and ethnic minorities
- People with less than a high school degree or GED certificate
- People with low income levels
- Non-native speakers of English
- People with compromised health status

http://www.health.gov/communication/literacy/quickguide/factsbasic.htm
Accessed 11-16-15
Limited health literacy impacts

The ability to...
- understand complex vocabulary and concepts
- describe health history and symptoms
- make basic informed decisions on healthy lifestyle choices
- manage overall health and chronic diseases
- understand and negotiate the healthcare system at every level


Low health literacy

- Low health literacy is associated with more hospitalizations, more use of emergency care, less ability to interpret labels and health messages, and trouble taking medications.

Berkman ND, Sheridan SL, Donahue KE, Halpern DJ, Crotty K., 2011

Low health literacy

- Adults from families below the poverty level have lower levels of health literacy.
- About half of adults who didn’t attend or complete high school had “below basic” levels of health literacy. Only 3% with a bachelor’s degree had “below basic” levels.

Kutner M., Greenberg E, Jin,Y, Paulsen C., 2006
Tips—low health literacy

Low health literacy—
you can’t tell by looking and you can’t expect your patients to tell you!

Tools for Assessing Health Literacy

List/description of Health Literacy Tests
http://www.nchealthliteracy.org/instruments.html
- Examples: Newest Vital Sign assessment, REALM assessment, TOFHLA assessment

Or you can just assume everyone has limited health literacy

Tips—low health literacy

- Use plain, non-medical language
- Show or draw simple pictures, and put them in context
- Limit the amount of info provided, and repeat it
- Teach back—“Just so that I can be sure I taught you well, can you explain back to me what I said to do?”

HRSA Effective Communications Tools Course
Tips—low health literacy

- Review the information later—consider a follow-up call
- Assist with coordination of care
- Have an easy system for getting appointments / rescheduling
- Team approach—(medical neighborhoods, use of follow-up educators, navigators)
- Create a shame-free environment

Tools

Effective Communication Tools for Healthcare Professionals 100: Addressing Health Literacy, Cultural Competency, Limited English Proficiency—Free online course

Physical Therapy and Physical Therapy Assistant Education Programs

One solution to working with patients living in poverty
APTA Code of Ethics

- **Principle #1:** Physical therapists shall respect the inherent dignity and rights of all individuals.
- **Principle #2:** Physical therapists shall be trustworthy and compassionate in addressing the rights and needs of patients/clients.
- **Principle #8:** Physical therapists shall participate in efforts to meet the health needs of people locally, nationally, or globally.

http://www.apta.org/Ethics/Core/

APTA Core Values

- Accountability
- Altruism
- Compassion / caring
- Social responsibility


CAPTE Criteria

- 7D4 Practice in a manner consistent with the APTA Code of Ethics.
- 7DS Practice in a manner consistent with the APTA Core Values.

http://www.capteonline.org/AccreditationHandbook/
**CAPTE Standards**

- 7D13 Participate in professional and community organizations that provide opportunities for volunteerism, advocacy, and leadership
- 7D34 Provide physical therapy services that address primary, secondary, and tertiary prevention, health promotion and wellness to individuals, groups and communities.

http://www.capteonline.org/AccreditationHandbook/

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**Partnering with a College or University Program**

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**Colleges and Universities Partnerships**

- Programs desire to develop reciprocal and sustainable community partnerships.
- Institutions consider the needs of their local community and attend to the development of culturally sensitive and appropriate programming and initiatives.
- Students are seeking community engagement experiences that will assist in developing expertise in their respective areas of study.

Crum & Superman, 2008; Rehal & Gower, 2009; Reynolds, 2005; Reynolds, 2009; Village, 2006; Palombaro et al., 2011
Identification of Students

• Look for accredited PT or PTA programs in your geographic area
  – http://www.capteonline.org/Programs/
• Look for other professional health programs in your area
  – ie PA, OT

Examine the Mission

University Mission

Widener University's Mission...
Here at Widener, a leading metropolitan university, we achieve our mission by creating a learning environment where curricula are connected to societal issues through civic engagement.

Our mission at Widener includes the following tenets:
• We lead by providing a unique combination of liberal arts and professional education in a challenging, scholarly, and culturally diverse academic community.
• We engage our students through dynamic teaching, active scholarship, personal attention, and experiential learning.
• We inspire our students to be citizens of character who demonstrate professional and civic leadership.
• We contribute to the vitality and well-being of the communities we serve.

http://www.widener.edu/about/vision_history/mission.aspx
Program Mission

Widener University Institute for Physical Therapy Mission
The mission of the Institute for Physical Therapy Education of Widener University is to graduate clinically competent physical therapists who demonstrate exemplary character and assume the responsibilities of citizenship.
Clinically competent graduates manifest the authentic knowledge and skills of the physical therapy profession engaging in evidence-based practice, life-long learning, and autonomous decision-making.
The character traits of our graduates enable them to internalize values that support ethical behavior, compassion, and respect for cultural traditions.
Graduates, as responsible citizens, collaborate to enhance healthcare delivery, to empower clients and families, and to contribute to the profession, community, and society.

http://www.widener.edu/academics/schools/shsp/physical_therapy/graduate/default.aspx

Other sources of information

Program website may tell you about special programs or opportunities

- The Physical Therapy Pro Bono Honor Society: http://www.ptprobononhs.org/members/
- Use the Carnegie Classification website to look up institutions that have elected into Community Engagement Classification http://carnegieclassifications.iu.edu/lookup_listings/institution.php

Perform a Needs Assessment

A needs assessment will tell you...
- The health considerations of your patient/client population.
- If any existing programs address these health considerations
- If PT/PTA programs have interest in addressing these health issues
A Primary Needs Assessment...

- Involves all stakeholders
- Uncovers what the stakeholders feel the health issues are

Stakeholders

- Physical Therapists/your employer
- Patients/ Clients
- PT/PTA programs
- Your larger community

A Secondary Needs Assessment

- Published articles with samples similar to your patient/client population
- Epidemiological sources
Establish the need and/or the partnership

- Create common goals and measurable objectives.
- Carefully plan the program.
- Track outcomes.

Examples from the Literature

Bellarmine University

- On-campus pro bono clinic; off-campus faith-based community center serving underserved older adults with multiple co-morbidities
- Student self-assessment yielded themes of Compassion/Caring and Accountability

Crandall et al, 2013
University of Texas Medical Branch

- Stroke clinic run by PT and OT students and supervised by PT and OT faculty
- Students noted that this was a strength of their academic preparation.
- Clients positively rated their experience practicing new skills to aid their recovery.

Doucet and Seale, 2012

Arkansas State University

- Partnership with Center on Aging-Northeast
- Inter-professional: pairs BSN, PT, SW, Communication Disorders and Dietetics Students with community-dwelling older adults.

Matthews et al, 2013

University of Massachusetts Lowell

- Healthy Elders Living Program (HELP)
- Partnership between health professions students and several community partners that serve older adults
- Addresses chronic disease management in at-risk elders
- Students practiced professional skills they learned in classroom
- Older adults had improved physical performance and decreased depression.

Seymour and Cannon, 2010
Chester Community Physical Therapy Clinic

- A student-led pro bono clinic designed to serve the physical therapy needs of the uninsured and underinsured in the community
- Provides educational and leadership development opportunities for students and alumni as well as partnership opportunities with the community.

Black et al, 2013; Palombo et al, 2011

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Chester Community Physical Therapy Clinic

Serves as a hub for community outreach including...
- Brain Safety Fairs/Bike Helmet Giveaways
- MLK Day of Service
- Geriatric Screenings
- Community Health Practicum

Pierce et al, 2014; Palombo et al, 2014; Lattanzi et al, 2011; Palombo et al 2010

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Take away points

- Poverty is common in the US.
- Higher risk of poor outcomes for patients in poverty.
- Patients in poverty have challenges that can make treatment more complex.
- Consider upstream factors.
Needed!

- PTs need to self-educate about this population.
- Research about how SES specifically affects PT treatment.
- PTs involved in ACOs.
- Pro bono programs that are “Community-based” vs. “Community-placed.”

Why should therapists care?

- Poverty is a contextual factor that affects all aspects of a patient’s treatment.
- If you ignore the effects of poverty on your patients, you risk being ineffective.
- If you are personally ineffective, you will become burned out.
- If PT as a profession is ineffective with such a large percentage of the population, we will lose credibility.

But really, why should we care?

**Because it’s the right thing to do!**
Treat all patients the same?

Better Health for All Series 3: Advancing Health Equity in Health Care.

Cathy Bookser-Feister References

Pictures:
- ICF: Werner A Steiner et al. Mys Ther 2002;82:1098-1107
- Picture of boy with apple—from Catholic Charities website [https://www.google.com/search?q=child+poverty+american+site:wikimedia.org&client=safari&hl=en-us&biw=1024&bih=704&tbm=isch&source=lnms&sa=X&ved=0CAYQ_AUoAWoVChMIxbbJytmByQIVhBweCh0KwQr5&dpr=2#imgrc=XY5lAC7QR6tQ9M%3A]

References


Content:
References


References


References

References


Kerstin Palombo References


Widener University

References


Widener University
References