Purpose: Patient satisfaction is an important component to health care utilization and effectiveness of care. Many factors affect patient’s perception of satisfaction, including length of wait time, time spent with the provider, and how respectfully patients are treated by clinical staff. This evaluation was intended to provide clinic-specific baseline measures to guide future quality improvement in patient satisfaction, service delivery, and patient-centered care within public HIV clinics in Harare, Zimbabwe.

Methods: We conducted a mixed-methods analysis of descriptive statistics using R, (Version 3.5.0) and qualitative analysis of interview data using ATLAS.ti (Version 8.3.1) to categorize common themes reported by staff on their perspectives of patient satisfaction, patient-centered care and recommendations for improvement.

Results: Mean age of survey participants was 40 years, and 72% female. Analysis of time data showed the average wait from arrival at the clinic to seeing a provider was 2h, 10min. The longest wait interval was from arrival to registration which took an average of 1h 14min. The patient-reported average wait time to provider was 1h, 45min, which was considerably less than the actual wait. For patients, the areas of least satisfaction were the service hours, time waiting for providers, and cost of treatment. Patients were most satisfied because they received their medication and many felt they were provided good and quick service. Results from in-depth interviews with staff showed that staff shortage, service fees, and lack of staff salary for 4 months are causes for decreased patient satisfaction. Staff suggested that more staff be hired, the patient service fee should be removed, staff should be paid promptly, and staff should receive continuing education on counseling and appropriate patient treatment.

Conclusion: Patients reported good satisfaction regarding their services and care in relation to their previous experiences of HIV care, which historically included limited medication availability and all day clinic appointments. There was potential issues with Hawthorne Effect as patients stated services were better or faster on this particular day compared to other days. Extended waiting time due to staff shortage was a major source of patient dissatisfaction. Both patients and staff had similar insights regarding areas of dissatisfaction and recommendations for improvement.

Title: Time and Motion Evaluation and Patient Satisfaction in HIV Clinics in Harare, Zimbabwe

Keywords: HIV, Patient Satisfaction and Time and Motion


**Abstract Summary:**
The amount of time patients spend for clinic services can influence their degree of satisfaction. We evaluated the time HIV patients spent in each service area and their overall satisfaction of services. Additionally, in-depth interviews of clinical staff provided their perceptions of patient satisfaction, patient-centered care and recommendations for change.

**Content Outline:**

1. **Introduction**
   1. 2016-2020 National Health Strategies for Zimbabwe
      1. Commits to the highest possible health for its citizens.
      2. Aims to meet and exceeded current health delivery standards to improve the health care experience for patients
   2. Gaps in Research
      1. No known patient-flow time data has been collected in HIV clinical sites
      2. No patient satisfaction surveys were conducted in conjunction with a patient-flow analysis
2. **Methodology**
   1. Convenience sample of 3 City of Harare Polyclinics
      1. 676 patient-flow time data
      2. 420 self-administered patient satisfaction surveys
      3. Eleven in-depth interviews with clinical staff
3. **Results**
   1. Time-flow data
      1. Average wait time from arrival to provider was 2hr, 10min
      2. Area of longest wait time from arrival to registration was 1hr, 14 min
      3. Average wait time from registration to provider was 49 minutes
      4. Average wait time from registration to provider was 49 minutes
      5. Average wait time from registration to lab was 44 minutes
   2. Surveys
      1. Average age of participants was 40 years
      2. 72% female participants
      3. Patient reported wait from arrival to provider was 1hr, 45min
      4. 76% were very satisfied with their services
5. Areas of least of satisfaction was: service hours, time waiting for providers and cost of treatment
6. Areas of highest satisfaction was: receiving their medication, good/quick service and how they were treated
7. Recommendations for change: more staff, faster service, providing good service, removing fees

3. In-depth interviews
   1. Many staff had never heard of patient-centered care
   2. Staff shortage, service fees and lack of staff salary for 4 months leads to decreased patient satisfaction
   3. Recommendations: hiring more staff, removing service fees, continuing education on counseling and proper treatment of patients

4. Conclusion
   1. Satisfaction
      1. Patients and staff had similar insights to satisfaction
      2. Patients felt very satisfied, overall
   2. Hawthorne effect
      1. Patients stated services were better or faster on this particular day compared to other days
   3. Historical context of HIV services and medication
      1. Frequent stock-out of medication or only one weeks supply was given at a time
      2. Wait time for HIV services would take the entire day

First Primary Presenting Author
Primary Presenting Author
Abigail Link, MPH
University of Washington
Family and Child Nursing
PhD student
University of Washington Seattle
Seattle WA
USA

Author Summary: Abigail Link is a second-year nursing PhD student at the University of Washington and a Robert Wood Johnson Foundation Future of Nursing Scholar. She holds an MPH with a concentration in international health and plans to pursue research and work both domestically and internationally. She is currently preparing for her general exams and working on her dissertation topic in HIV care and treatment in Sub-Saharan Africa.

Second Author
Danuta Kasprzyk, PhD
University of Washington
Family and Child Nursing
Research professor
University of Washington Seattle
Seattle WA
USA

Author Summary: Danuta Kasprzyk holds a PhD in Social Psychology from the University of Washington. She is a research professor and has over 20 years experience as a research scientist in the Centers for Public Health Research and Evaluation. She co-developed the Integrated Behavioral Model and has used it extensively to predict and change behavior. Kasprzyk has had research experience in many communities in the US as well as in Africa.
Author Summary: Barbara Cochrane holds a MN in Physiological Nursing and PhD in Nursing Science from the University of Washington. She is the acting chair of the Department of Child and Family Nursing at the University of Washington. She has over 20 years research experience with the Clinical Coordinating Center for the Women’s Health Initiative and has presented and has consulted nationally and internationally on older women’s health, health promotion, and community care for older persons.

Author Summary: Mufuta Tshimanga holds a MD from the University of Zaire and a MPH from the University of Zimbabwe. He is currently the director for Zichire- Zimbabwe Community Health Intervention Research which implements and evaluates public health interventions on a multi-sectorial level and the African Field Epidemiology Network. He has extensive research experience and commits to teach and advise the next generation of physicians and epidemiology researchers.