



Provider perceptions of utility and impact of a same-day routine electronic patient reported outcomes (PRO) assessment in clinical HIV care

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AIMS & METHODS

We assessed provider and clinic staff perceptions of the utility and acceptability of tablet-based patient-reported outcomes (PRO) assessment integrated into routine HIV care in an academic ambulatory clinic (St. Michael's Hospital, Toronto, Ontario) and a community-based clinic in North America (Midway Specialty Care, Ft. Pierce, FL).

Patients in HIV care self-administered a ~10 minute PRO assessment of several clinical domains (e.g., antiretroviral adherence, substance use, depression/suicidal ideation, sexual risk behavior, intimate partner violence) on-site immediately prior to their routine care visit.

Providers were furnished with succinct summary results (see Fig. 1) before meeting with the patient. We conducted 1) 1:1 semi-structured interviews, and 2) subsequent post-interview, anonymous surveys with providers in which they were asked level of agreement with value statements pertaining to PROs.

We aggregated quantitative data; qualitative data was collected by digital recorder, transcribed by an independent agency, and coded using qualitative coding software. We coded within thematic areas, and identified key sub-themes within each.

RESULTS

Fig 1. Sample PRO results summary

Patient-Based Measures Provider Feedback				
Zero Zero	MRN: 000000	DOB: 11/30/0001	Printed 3/21/2018	
Depression (PHQ-9)	15	Not answered	Not answered	Not answered
Suicidal Ideation (PHQ-9)	3	Not answered	Not answered	Not answered
Substance Use	Tobacco cigarettes: Currently E-cigarettes: Yes	Tobacco cigarettes: Not answered E-cigarettes: Not answered	Tobacco cigarettes: Not answered E-cigarettes: Not answered	Tobacco cigarettes: Not answered E-cigarettes: Not answered
Alcohol Score	10	Not answered	Not answered	Not answered
MMSE Score	7	N/A	N/A	N/A
Substance Use (Past 3 months)	Cocaine/crack, Prescription opiates, Marijuana, Sedatives or sleeping pills	Not answered	Not answered	Not answered
Antiretroviral Adherence (Past 4 weeks)	Very good	Not answered	Not answered	Not answered
Concern for IPV (Past year)	Physical violence: Yes Sexual violence: Yes	Not answered	Not answered	Not answered
Participated/controlled	Yes	Not answered	Not answered	Not answered
Fearful of harm	Yes	Not answered	Not answered	Not answered
Sexual Risk Behavior (Past 3 months)	4-5	Not answered	Not answered	Not answered
Number of partners	All male • HIV negative partners: None prescribed PrEP • HIV positive partners: All prescribed ARTs • Partners) w/ unknown HIV status	Not answered	Not answered	Not answered
Unprotected anal sex	Yes	Not answered	Not answered	Not answered
Unprotected oral sex	Yes	Not answered	Not answered	Not answered
Unprotected vaginal sex	No	Not answered	Not answered	Not answered
Concerned for STI exposure	Yes	Not answered	Not answered	Not answered
Current Symptoms From 3/21/2018 Assessment	Bothers A Lot Fever, chills, sweats Cough	Bothers Some Fatigue Nausea/vomiting Headache		

Participating providers included 5 MDs, 1 nurse practitioner, 1 physician's assistant, 2 pharmacists, 2 RNs (n=11).

Survey data showed providers agreed with each value statement (82% agreed or strongly agreed with each statement).

RESULTS

These value statements were:

- Helped prioritize discussion topics with the patient
- Identified topics that would not otherwise have been addressed
- Led to more discussions on potentially sensitive topics
- Made the consultation easier
- Added value to the visit overall

However, providers disagreed on whether PROs saved time during their consultation (50% agreed, 27% disagreed, 23% neither agreed or disagreed).

In interviews, providers reported PROs:

- Facilitated identification and ability to address sensitive issues that would likely have been missed, particularly depression/suicidality, sexual behavior, and intimate partner violence
- Allowed for more comprehensive identification of issues and concerns
- Had an additional but manageable impact on workflow, but the identification of issues and comprehensiveness of care were a valuable tradeoff
- Were most useful with less well-known patients, with whom patient-provider communication was less established, and with patients not easily agitated or suspicious of questionnaires

RESULTS & CONCLUSION

Feedback from providers on use of PROs for reducing social desirability bias:

"...unless it was very obvious [that the patient was suicidal] ...I wouldn't [have asked]. And in these cases, these are literally people that I don't think I would have flagged..." (Clinician, Toronto)

"Honestly, I was surprised at how useful I was going to find it....I figured my patients and I have a pretty good relationship...they're gonna tell me all these things. [But I was] hearing things I hadn't heard before." **You're almost glancing behind a curtain.** (Clinician, Ft. Pierce, FL)

On use of PROs for agenda-setting:

"**You have the whole picture of what needs to be addressed in that visit, what we are missing...[otherwise] you won't be able to ask so many questions in such a short period of time. So to me, it's a great tool.**" (Clinician, Ft. Pierce, FL)

"**It makes patients feel as if they're more involved in their care and that's important.**" (Clinician, Ft. Pierce, FL)

In conclusion, providers found PROs with results delivery both useful and acceptable for routine HIV care. **Ability to address sensitive topics, particularly depression and suicidal ideation, offset additional burden on clinic flow and provider workload.**