

Barriers and Enablers to Implementation of High Value Renal Pharmacist Interventions: A Theory-Informed Study

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BACKGROUND

Renal Quality Indicator Drug Therapy Problems (QI-DTPs)

- 17 renal QI-DTPs were developed using expert consensus in 2016
- Pharmacist implementation of renal QI-DTPs aim to:
 - help renal pharmacists prioritize patients
 - help renal pharmacists prioritize interventions
 - advance renal pharmacist practice to improve care
- Pharmacist implementation of renal QI-DTPs requires a systematic, behavior change theory-driven approach

Behavior Change Theory-Informed Approach to Implementation

- Capability, Opportunity, Motivation (COM) are sources of behavior
- Theoretical Domains Framework (TDF) is validated theory that has been mapped to COM to identify enablers and barriers to behavior of interest
- Identification of barriers and enablers to pharmacist implementation of renal QI-DTPs is necessary before selecting and delivering behavior change interventions to optimize implementation of renal QI-DTPs

OBJECTIVE

- To identify modifiable barriers and enablers to the implementation of renal QI-DTPs by renal pharmacists.

METHODS

Design:

- Prospective, qualitative study

Setting, Sampling, Timeframe

- Representation of renal pharmacists across Canada
- July 2016 – April 2017

Inclusion Criteria

- Pharmacists who spend >50% time providing direct care to CKD patients

Exclusion Criteria

- Not a panelist in the study to determine renal QI-DTPs

Data Collection

- One-on-one, 30 minute, semi-structured audio-recorded interviews
- Interview questions based on TDF domains
- Recorded interviews transcribed by 1 investigator

Data Analysis

- Directed content analysis
- Responses coded to most appropriate TDF domain by 1 investigator
- Codes grouped to identify themes in barriers and enablers

RESULTS

Table 1. Participant Characteristics

CHARACTERISTIC	n=13 (%)
Female	9 (69)
Province of Practice	
BC	1 (8)
Alberta	2 (15)
Manitoba	3 (23)
Ontario	5 (38)
Quebec	1 (8)
Nova Scotia	1 (8)
Renal pharmacist experience (yrs)	
1-5 years	5 (38)
6-10 years	4 (31)
11 years +	4 (31)
Highest Academic credentials	
Bachelor of Science in Pharmacy	6 (46)
Pharmacy Residency	3 (23)
Post entry to practice PharmD	4 (31)
Patient subpopulation	
CKD – all stages pre-dialysis	7 (37)
ESRD – hemodialysis	9 (47)
ESRD – peritoneal dialysis	3 (16)

Table 2 TDF Domain and Utterances

TDF Domain Code	Utterances
Social influences	87
Environmental Context and Resources	53
Beliefs about capabilities	37
Beliefs about consequences	37
Social Professional Role and Identity	36
Behavioral Regulation	26
Skills	23
Knowledge	20
Memory Attention Decision Processes	13
Intentions	13
Optimism	3
Goals	1
Total utterances	349

RESULTS

Table 3 Barrier Themes

Capability	<ul style="list-style-type: none"> Renal pharmacists do not feel they have sufficient knowledge to make high priority interventions. Renal pharmacists do not consider the renal QI-DTPs to be the highest priority interventions.
Opportunity	<ul style="list-style-type: none"> Renal pharmacists are limited in their ability to make high priority interventions by the nephrologists they work with.
Motivation	No motivation barriers identified.

Table 4 Enabler Themes

Capability	<ul style="list-style-type: none"> Renal pharmacists who receive additional training (residency, PharmD) feel more confident in making high priority interventions.
Opportunity	<ul style="list-style-type: none"> Renal pharmacists can make high priority interventions when they have support from colleagues and nephrologists.
Motivation	<ul style="list-style-type: none"> Renal pharmacists want their patients to achieve the best health outcomes possible.

DISCUSSION

Strengths:

- Participants had varied education and clinical experience backgrounds in renal settings across Canada
- Each participant was asked same set of questions, which were based on validated tool for identifying factors influencing behavior change
- Reflexive journaling performed during interviewing and coding

Limitations:

- Volunteer participation introduces potential for selection bias
- One investigator performed majority of coding and theme development

Implications for Practice:

- Themes can be mapped to Behavior Change Wheel to guide development of interventions that will change renal pharmacist clinical behavior

Future Initiatives:

- Develop interventions that modify renal pharmacist behavior and evaluate how well they increase number of renal QI-DTPs renal clinical pharmacists resolve in their patients.

CONCLUSIONS

- The three modifiable barriers to renal QI-DTP implementation were:
 - knowledge gaps
 - prioritization gaps
 - perceived lack of nephrologist acceptance
- The three modifiable enablers to renal QI-DTP implementation were:
 - pharmacist level of training
 - presence of colleague support
 - belief that implementation leads to better patient care

