Applying the Kirkpatrick Model to a Pharmacist Seminar on Opioid Misuse Screening in Community Pharmacies

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Background
In a primary care setting, as many as one in four patients receiving long-term opioid therapy struggles with opioid addiction. The purpose of this project was to train pharmacists in the community setting on naloxone prescribing, naloxone administration, use of the Opioid Risk Tool (ORT) for screening for risk of opioid use disorder, and opioid use disorder consultation and referral. According to the Kirkpatrick Model, the impact of a training program for healthcare professionals can be evaluated by examination in a stepwise process. Changed perceptions through training can lead to change in practice behaviors, which can lead to positive patient outcomes.

Hypothesis
An education seminar followed by implementation of a guided pilot project could empower community pharmacists to provide evidence-based opioid misuse prevention care to patients receiving an opioid prescription.

Objective
1. Explain steps in designing a prevention-based training course for pharmacists.
2. Describe participant experience with the Opioid Misuse Risk Prevention toolkit seminar
3. Explain the process by which adult learners move from reaction to results in response to a training program.

Methods
The Opioid Misuse Risk Prevention Toolkit seminar was designed and delivered to community pharmacists to prepare them to screen patients receiving opioid prescriptions for risk of opioid use disorder, and provide a series of follow-up services according to their risk level. The seminar was a 3-hour live training designed to cover:
- The science of addiction
- Introduction to the Opioid Risk Tool to screen patients for risk of opioid misuse
- Abuse potential counseling and referral
- Naloxone prescribing, dispensing, and consultation.

A 12-item survey was created and administered pre- and post-training. The hypothesis was tested through implementation of a 6-week pilot project using the toolkit. One focus group was held to elicit pilot pharmacist feedback.

Kirkpatrick Model
The Kirkpatrick Model consists of 4 levels of learning. Level 1 is the reaction stage indicating how favorably the learners react to the seminar. Level 2 is achieved by the learners acquiring a change in attitude, knowledge, or skills. When a behavior learned in a training is carried out in practice, level 3 has been reached. This should consist of behaviors that can be observed and measured. Level 4 represents results, involving patient outcomes and incremental steps leading to a larger outcome over a longer period of time.

Results
This training was completed by 54 pharmacists and 16 pharmacy students. Using the levels of the Kirkpatrick Model, participants were satisfied with the seminar and pilot project (Level 1: Reaction). There was an 8.3% increase in those who agreed that screening for opioid misuse can be an important tool for the pharmacist (Level 2: Learning). Eleven pharmacists implemented this pilot project and 107 patients were screened, with 15.6% being counseled on support services based on their opioid risk profile (Level 3: Behavior). While we do not have reported patient outcomes to relate to the fourth level of the Kirkpatrick model, Table 1 shows the services provided to the patients including partial fills and naloxone prescriptions.

Pharmacists reported that the screening tool and toolkit provided an objective and unbiased way to help their patients (Level 4: Results).

Table 1. Services offered to patients receiving opioids (n=107)
<table>
<thead>
<tr>
<th>Service provided</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduced to the medication take-back program</td>
<td>71</td>
</tr>
<tr>
<td>Prescription partial fill</td>
<td>3</td>
</tr>
<tr>
<td>Provided community support services information</td>
<td>17</td>
</tr>
<tr>
<td>Explained the benefits of naloxone</td>
<td>43</td>
</tr>
<tr>
<td>Prescribed naloxone</td>
<td>5</td>
</tr>
<tr>
<td>Dispensed naloxone (nasal spray, based on insurance coverage)</td>
<td>3</td>
</tr>
</tbody>
</table>

Conclusions
The Opioid Misuse Risk Prevention Toolkit demonstrates potential for a process that community pharmacists can utilize in practice. This process can play a role in the upstream prevention of the opioid epidemic. Pharmacists are the first line professionals for patients picking up opioid prescriptions in the community setting, and therefore are in the ideal position to provide proactive, empathetic care to help patients use opioids safely and prevent misuse of these medications.

References