Coaching nursing students with attention deficit hyperactivity disorder in clinical settings: A case study

Kathleen M. Davidson*[1], Liam Rourke[2], Kara L. Sealock[1], Wai Yin Mak[1]

[1] Faculty of Nursing, University of Calgary, Calgary, Canada
[2] Department of Medicine, University of Alberta, Edmonton, Canada

ABSTRACT

Up to 18% of undergraduate students have some form of learning disability, with Attention Deficit Hyperactivity Disorder (ADHD) being the most common subtype. Some of these students enter nursing programs. Post-secondary institutions are developing processes to help students overcome traditional academic challenges, however, the demands of clinical practice courses are not easily modified. Effective performance in clinical settings requires nursing students to develop sophisticated executive functions for organization, prioritization, and managing distractions, all of which present considerable challenges for students with ADHD. We present a case study to illustrate the coaching intervention we adapted from the education literature for a nursing student with ADHD who was struggling in clinical practice courses. The most effective coaching strategies helped the student to harness his energy and enhance focus on the task at hand.

Key Words: Learning disability, Nursing students, Clinical practice, Attention Deficit Hyperactivity Disorder, Coaching

1. INTRODUCTION

Nursing education presents two successive challenges to its students. First, they must acquire a large body of nursing knowledge and other core subjects that are the foundation of their practice. Second, and even more challenging, they must apply that knowledge in clinical settings, settings which are typified by distractions, interruptions, and urgency. For students who are hyperactive and who have deficits of attention, functioning effectively in these environments is an enormous challenge.

Most Registered Nurses (RNs) cannot describe how they currently manage distractions, nor how they learned to do so.[1] Most likely they were thrust into clinical environments without formal teaching on how to cope with interruptions, manage their time, or set priorities. Few effective and fea-sible strategies are available in the literature for teaching undergraduate nurses how to safely and confidently manage interruptions in the clinical environment. Strategies to reduce distractions, such as posting "Do Not Disturb" signs, or vests worn by nurses to indicate they are administering medications, have had mixed results.[2–4] Moreover, to ensure patient safety, it is undesirable to eliminate all interruptions and distractions. In their review of the subject, Hayes et al. identified "the need for the development of sustainable programmes that include high quality learning experiences that teach interruption management to undergraduate nurses in a safe environment" (p. 1063).[1]

When considering how to develop such learning experiences for students with Attention Deficit Hyperactivity Disorder (ADHD), it is helpful to understand their condition. Origi-

*Correspondence: Kathleen M. Davidson; Email: kmdavid@ucalgary.ca; Address: Faculty of Nursing, University of Calgary, Calgary, Canada.

nally, ADHD it was thought to be a learning disability that children outgrew. It is now recognized that it persists into adulthood in 40%-80% of individuals diagnosed in childhood. Adults with ADHD have characteristic impairments in executive functioning which have major ramifications for nursing practice: inability to organize, sequence and prioritize tasks; procrastination and inability to focus; inability to manage distracting internal and external stimuli, impulsive decision-making; and starting tasks without reading/listening to directions.[5–8] Researchers have estimated that up to 18% of college students have ADHD,[5, 9] although the prevalence in nursing students specifically has not been reported or investigated.

"ADHD is characterized not as a disorder of knowledge but of performance" (p. 499).[10] Adaptive learning strategies that the individual with ADHD used successfully prior to entering college to attain and retain knowledge may not apply in the performance arena of nursing clinical practice. Academic accommodations, such as extra time for exams, or writing exams in a separate room have not been designed for performance-based learning situations, and cannot be replicated in nursing practice settings.[7, 11] A nursing student in a clinical setting cannot have extra time, nor retreat to a non-distracting place to think, when administering medications and caring for acutely-ill patients.

So then, what can the clinical nursing instructor (NI) do to accommodate the nursing student with ADHD in clinical practice? Clinical NIs are hired for their expertise and experience in registered nursing practice. Few have been formally prepared for their educational role. Fewer still have any expertise in teaching a nursing student with ADHD.[12] The clinical NI will give the struggling nursing student with ADHD strong feedback about organization and time management, getting and staying focused, and reviewing textbooks and agency policies before attempting to perform nursing psychomotor skills. However, without consideration of the underlying issue, nursing students with ADHD are likely to start down a predictable trajectory: they will be given learning development plans in clinical practice courses, have a lower academic performance as indicated by lower grade point average (GPA), be placed on academic probation and risk failing to graduate, with consequent symptoms of anxiety, depression, substance abuse and personality disorders.[5, 10, 12] To re-direct this trajectory, clinical teaching strategies for nursing students with ADHD are urgently needed.

2. METHODS
The nursing literature offers little guidance for instructors seeking methods to support students with ADHD through their clinical practicums. A broader search, however, identi-

fied coaching as an intervention that had been used to assist undergraduate students with ADHD, and we adapted this approach to our setting. The following section presents a case study of a coaching intervention and its impact on a former nursing student with ADHD, the fourth author (WYM) of this paper. Information about the impact of the coaching intervention originates in a structured conversation that the second author (LR) had with WYM after his graduation from the nursing program. The conversation was structured around six items drawn from the Adult ADHD Self-Report Scale,[13] which prompted WYM to reflect on his perceptions of the coaching strategy, and its impact on his clinical practice. Ethical approval for this project was received from The University of Calgary Ethics Review Board (REB16-1910).

2.1 Coaching
Several authors have shown that coaching is a successful intervention for improving executive functioning in college students with ADHD.[7, 14, 15] We felt that individual coaching sessions with an expert nurse-educator could enhance our student's executive functioning in clinical practice by guiding him to think about his thinking.[8] In the following paragraphs, we will describe our approach to student coaching, beginning with our adaptation of a coaching model.

Dunlap, Iovannone, Wilson, Kincaid & Strain developed a team-based approach to support school children with ADHD, using the Prevent-Teach-Reinforce (PTR) model.[16] The PTR model served as a guide for our work with WYM. Dunlap et al. note that the first step is to establish a team and decide how it will function. However, our first step was the assessment by the clinical NI that WYM was not meeting the learner outcomes for the course, identifying areas for improvement including preparation for the shift, organization, time management and planning (OTMP) and managing distractions, which triggered a learning development plan. Returning to the Dunlap et al. model, we created an intervention team which included WYM, the clinical NI, and the first (KD) and third (KS) authors, who were the nursing practice course coordinators (NPCCs). The next step was to set the goal, which for all team members was for WYM to successfully complete the clinical course. This over-arching goal was further broken down into sub-goals for each of the areas for improvement which were identified in the learning development plan. These sub-goals became the foci of each coaching session. Because of the short time line to the end of the university term, coaching sessions incorporated several sub-goals in each session; there was not enough time to focus on one sub-goal each week.

Coaching sessions with WYM focused on the thinking processes and executive functions of clinical nursing prac-

tice.[5, 7, 11] We concentrated on three areas: preparation, organization and setting priorities, and managing distractions.[8, 10] We used retrospective, reflective review of his most recent clinical shifts to prompt WYM's rehearsal and planning for upcoming shifts. WYM was affirmed and commended for implementing actions and strategies which had positive outcomes. When he experienced setbacks, we reflected and brainstormed on how to do better next time, and reiterated our strong belief that WYM had the potential to master nursing practice and to be successful in the clinical course.[7] In addition to focusing on executive function in the clinical practice setting, we encouraged WYM to set realistic goals around extra-curricular activities, such as paid and volunteer work and social commitments, and to set aside activities which caused increased stress or took up time that needed to be directed into academic/clinical success strategies.[7, 17]

2.1.1 Preparation for clinical shifts

Nursing students generally receive their patient assignment prior to the beginning of the shift, to give the student time to review the patient's health record. For the nursing student with ADHD, being confronted with the overwhelming amount of information in the patient's health record, and limited time to synthesize it, presents huge challenges: a cover-to-cover approach is neither useful nor efficient. Adults with ADHD struggle to remain focussed and to direct their attention to the most pertinent information. Additionally, mastering healthcare terminology, replete with jargon and abbreviations, is similar to learning a foreign language, which presents particular difficulty for students with ADHD.[12] In the same way that a nursing student with ADHD often requires more time for theory examinations, this student also benefits from more time to prepare for clinical practice, such as having an extra hour to prepare prior to the start of the shift.

To help WYM to prepare for clinical shifts, he and the NI started the shift an hour prior to the rest of the students in the clinical group. We provided WYM with a structured worksheet and focussing questions, which directed him to extract the most pertinent information from the health care record. For example, after reading the admission history, WYM was coached to ask himself, "what is the patient's diagnosis, and what knowledge do I already have about this diagnosis? With this diagnosis, what lab values, imaging/surgical reports are the most important to review right now? What medications do I expect this patient to be receiving?" WYM could then compare his existing knowledge and expectations to actual patient information, using the difference to create a list of what was new/unexpected and needed to be researched.[18] Another concrete strategy was to have WYM present his patient research and preliminary care plan to the clinical NI as an SBAR (situation, background, assessment, recommendation) report prior to commencing patient care.[18] The NI received meta-coaching about giving constructive feedback on WYM's pre-shift report and plan, and ongoing feedback as the shift unfolded. WYM stated:

> For me, it would be making sure I go through what I need before even stepping into the patient's room and thinking about what I'm going to say, because sometimes I really speak from my mind, right away, and it's not really the right thing to say but now I do think a lot before I speak because what we say and what we do can affect a patient in a magnitude of ways.

In the weekly coaching sessions, WYM and the coach conducted a retrospective review of WYM's preparatory notes from the previous clinical shift, which gave WYM the benefit of hearing an expert nurse think out loud about where she would have directed her attention to prepare a care plan for the assigned patient. We guided WYM to identify whether he had asked himself focussing questions during clinical preparation time, what patient information had proved to be most important to patient care on that shift, and to identify where he had spent too much time on less important information while missing key pieces. WYM commented in the interview:

> "For me, it was the whole impulse: I would think I know it and I would go right in. But after the coaching and strategies to do a whole lot more research than I would have before, just to make sure I know, textbook-wise, or theoretically, what I'm going into and then walk myself through it".

2.1.2 Organization, time management and planning

Organization, time management and planning (OTMP) are often impaired in young adults with ADHD.[8, 19] However, these are critical skills for nursing students. Strategies for managing undergraduate theory courses (using a calendar, constructing a to-do list) do not address the particular OTMP challenges of clinical nursing in an acute care environment. As well, time estimation and self-regulation is often difficult for students with ADHD.[8, 12] A strategy we used for teaching OTMP in the clinical setting was the time-and-task plan, whereby WYM attempted to anticipate and break down complex tasks and activities into small manageable steps, with a time estimate assigned to each step.[8, 19] The time-and-task plan gave WYM insight into what actually happened during the clinical shift and how much time was consumed by each

event or activity. At the next coaching session, WYM and the coach would retrospectively review the time-and-task plan, extracting from WYM's patient research notes the activities which could have been anticipated and correlating these expectations with his actual time-and-task plan, which helped WYM to see how and why his time plan was accurate, or not. From WYM's perspective,

> "One big thing I learned from KD and KS was how to focus, harness all that energy that's in my head, because I often have over active thoughts or the impulse to do things but to be able to harness that and focus it in a way that I can prioritize my commitments. Coaching taught me that if I do one thing first, I could get that task done quicker and more effectively and then move on to other tasks and then it would be overall more time effective."

We explored with WYM the factors which derailed his organizational strategies, such as, was he able proceed with his care plan, or was he held back his own lack of confidence, uncertainty and/or availability of the NI for supervision? Parker et al. note that self-talk is an effective strategy for students to use to organize their thinking, promote problem solving and decrease stress when confronted with clinical challenges.[7] WYM commented on self-talk in the interview:

> The coaches taught me that I need to think before I do something – that's really key when I think about being ADHD. Sometimes I think too much before I do something. And so, really slowing myself down and saying, "what it is I really need right now?"

Inherent in OTMP is choosing appropriate priorities. Because clinical nursing practice is a dynamic environment, Hayes notes "nurses must also learn to manage competing priorities simultaneously, rather than consecutively... Prioritisation and reprioritisation, multitasking, grouping of tasks and task sequences... were all reported as strategies experienced nurses use to manage their time and improve work flow... How and when the nurses learnt these skills was not reported" (p. 3073).[1] Learning to constantly shift priorities is a problematic area of executive functioning for all nursing students but particularly for students with ADHD. As WYM describes it, "when I've thought about being ADHD, I've realized that if I don't do it right away, I tend to move onto other things because I'm always moving along".

In the coaching sessions, we taught WYM a "1-2-3" strategy for setting nursing priorities. WYM was taught to ask him-

self prioritizing questions continuously throughout the shift: "What is most important right now? What needs to be done right now? What can wait?" For example, as he was walking into the patient's room for the first time, WYM would set three mental priorities of 1) conducting a rapid general survey of the patient and environment to ensure safety and comfort, 2) greeting the patient and introducing self, 3) checking that equipment is intact and functioning properly. Once those three priorities were accomplished, WYM would set three new priorities, such as conducting the three priority assessments that were identified during patient research. Setting and acting on small number of concrete priorities helps the nursing student with ADHD to break down complex tasks, focus, minimize distractions, and to be methodical rather than impulsive.[7, 8] WYM described the strategy he developed for himself:

> In clinical, I started writing down what I need to do, even making check boxes, like when I'm doing rounds, writing down, "patient has IV", with a box beside it. And then I'll go in there and check it off. That's my visual confirmation for myself.

We rehearsed with WYM how to decide between numerous conflicting priorities, and what to do when his three chosen priorities must be immediately revised, for example, if the patient is found unresponsive. Retrospective review of WYM's clinical shifts provided opportunity for non-threatening reflection of how he chose priorities, whether his anticipated priorities had proved accurate and how the coach would have set the same or different priorities. WYM commented in the interview, "Before I had the coaching on how to organize myself and think before I do something, I was just acting on a lot of impulse".

2.1.3 *Managing distractions*

To manage shifting priorities, the nursing student with ADHD must learn to reduce distracting stimuli and amplify relevant stimuli.[5] Sources of nurse interruptions include self-distraction and loss of focus, events occurring in proximity to the nurse, patients, other health care providers and phone calls.[1] WYM commented, "With ADHD, my mind is always wandering. By wandering, I mean I'm taking on so many tasks and so many tasks for different patients". Learning to discern distraction from relevance is difficult for all nursing students. The literature has identified the deleterious effect of interruptions and distractions on medication administration errors, noting that nurses are required to manage cognitive shifts in focus every six to seven minutes, with medication errors increasing in direct relationship with the number of interruptions. However, there is a paucity

of evidence-informed strategies for teaching undergraduate nursing students how to maintain clinical competency and patient safety in the face of inevitable distractions and interruptions.[1] WYM developed his own strategy for managing distraction:

> For me, I'm a very visual learner. In the clinical setting, I would actually write things down on my hand, you know, "pain med room 13-4" and having it visually there, once I walk out of the room and I start thinking "who else can I help or what else can I do next", I see that there on my hand, and even though my mind forgets, I go straight to the med room and do that task first and then move onto the next task. I don't think, "I'll remember".

2.2 Meta coaching

After each coaching session with WYM, we communicated with the clinical NI, describing what had been worked on in the coaching session, and the particular strategies WYM would be implementing on the next clinical shift. This crucial role of meta-coaching the clinical NI ensured that each strategy was clearly understood by the whole team and was manageable in the clinical setting, always remaining cognizant that the NI had seven other students to teach and supervise. The NI had a crucial role in assisting WYM to recall and apply strategies he had rehearsed in the coaching sessions. WYM was also required to seek feedback from the clinical NI after each shift, to assess progress in meeting each of the sub-goals. Another component of meta-coaching was helping the NI to understand what ADHD looks like in a nursing student. WYM describes his ADHD behaviours:

> As someone with ADHD, I need my brain to be focussed, as I have a plethora of thoughts running through my mind at times. And by some sort of fidgeting or repetitive movement, I could focus and sort through those ideas and thoughts in my mind.

Returning to the using the Prevent-Teach-Reinforce (PTR) model,[15] evaluation is the final step. WYM's progress was uneven: some clinical shifts went very well, and the team was elated. On other shifts, sometimes even the very next day, WYM was scattered and unfocused, and the team was discouraged. However, remaining positive through the peaks and troughs was an important aspect of coaching and meta-coaching. At low points, the nurse-coaches conducted site visits to the clinical practice setting, to support the clinical NI and to work one-on-one with WYM to encourage and reinforce strategies discussed in coaching sessions. Parker et

al. note that the coach's positive beliefs about the student's potential for success contribute to the student's self-efficacy and confidence.[7]

3. DISCUSSION

The purpose of this article was to present a case study of a teaching intervention we used to help an undergraduate nursing student with ADHD successfully complete a clinical practice course. Weekly coaching sessions focused on organization, time management, planning and managing distractions. When interviewed six months post-graduation, WYM described the effective and lasting effect of coaching on his clinical performance, culminating in his successful completion of the nursing program.

The stigma attached to ADHD makes many undergraduate nursing students reluctant to disclose their learning disability.[9] However, it is hard to imagine a learning environment more challenging than an acute care hospital unit for a student with ADHD. Compounding the challenging environment is the student's own fears of incompetence and failure, which may increase performance anxiety.[8] The nursing education literature is surprisingly silent on the issue of nursing students with ADHD, and offers almost nothing to assist nurse educators who teach these student nurses in clinical sites. Ikematsu et al. note that clinical nursing instructors lack specific knowledge and strategies to address practice deficits frequently observed in the nursing student with ADHD.[20]

Education literature is replete with resources for the assessment and treatment of post-secondary students with ADHD. However, the accommodations and interventions which assist ADHD students in classroom settings (cognitive behavioral therapy, additional time and quiet space for exam writing) are of little practical value to clinical nursing instructors. Weekly coaching sessions, using retrospective reflection and review, provided us with a concrete, practical teaching strategy intervention, and helped our student, WYM, to develop lasting clinical executive skills.[5, 8, 10] A crucial parallel meta-coaching intervention supported and encouraged the clinical NI to reinforce the coaching strategies with the student in the clinical practice setting. Throughout all coaching sessions, with the student and meta-coaching of the NI, the expert nurse-coaches focused on increasing the student's self-esteem, belief in own self-efficacy and decreasing performance anxiety.[7] WYM summarized his experience:

> All the coaching comes back to a central theme where KD and KS taught me how to focus myself and use my energy. It's not a bad thing to have too much energy, it's how you use it, how you focus it. You can always provide good

care once you've done your job and you can always use that energy to help other people. It's that whole safety piece, doing my part first, focussing on it, and not having my thoughts wander off to other prior or co-concurrent commitments I made by doing things one by one and using all the energy I have to get it done first, doing the best that I can on that one commitment and then moving forward to another commitment.

4. SUMMARY

Coaching self-identified nursing students with ADHD to self-regulate their executive functioning in order to be successful in clinical practice has the potential to be life-changing for the student. Post-secondary students with ADHD are more likely to have poor grades and lower GPA, and are at greater risk for academic probation and dropout.[5, 9] We have observed that nursing students with ADHD are very likely to struggle in clinical practice courses, be placed on learning development plans, and to withdraw from or fail clinical practice courses, leading to failure in the nursing education program. We concur with Hayes et al. who identified that nurse educators lack consistent, effective strategies for teaching nursing students how "to listen, think and act simultaneously, all within a rapidly changing environment, and to able to multitask when faced with interruptions" (p. 3074).[1] Empirical investigation of coaching, as a strategy to assist nursing students with ADHD, is greatly needed.

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