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Enhancing Care of Aged and Dying Prisoners: Is e-Learning a Feasible Approach?

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Abstract

Background—Prisons and jails are facing sharply increased demands in caring for aged and dying inmates. Our *Toolkit for Enhancing End-of-life Care in Prisons* effectively addressed end-of-life (EOL) care; however, geriatric content was limited and the product was not formatted for broad dissemination. Prior research adapted best practices in EOL care and aging; however, delivery methods lacked emerging technology-focused learning and interactivity.

Purposes—Our purposes are to uncover current training approaches and preferences, as well as to ascertain the technological capacity of correctional settings to deliver computer-based and other e-learning training.

Methods—An environmental scan was conducted with 11 participants from United States prisons and jails to ensure proper fit, in terms of content and technology capacity, between an envisioned computer-based training product and correctional settings.

Results—Environmental scan findings focused on: content of training; desirable qualities of training; prominence of “homegrown” products; and feasibility of commercial e-learning.

Conclusions/Implications—This study identified qualities of training programs to adopt and pitfalls to avoid, revealed technology-related issues to be mindful of when designing computer-based training for correctional settings, and participants spontaneously expressed an interest in geriatrics and EOL training using this learning modality as long as training allows for tailoring of materials.

Introduction

The United States (US) has the highest rate of incarceration of any country in the world (Fazel & Baillargeon, 2011), which has resulted in more than 1,800 state and federal prisons to house over 2.4 million prisoners (Wagner & Rabuy, 2016). The aging baby boom generation has caused a demographic shift toward an older population in the free world and correctional settings alike. Longer sentences and constrained options for early release compound this trend. The American Civil Liberties Union (ACLU) (2012) estimates that by 2030, about one third of the US prison population will be age 55 or older. The health status of aging inmates does not mirror the free-world population. In fact, prisoners present health issues that are common to free citizens who are 10–15 years their senior (Loeb, Steffensmeier, & Lawrence, 2008) and are typically labeled as “older” or “geriatric” prisoners at age 50 (Loeb & AbuDagga, 2006) or 55 (Williams, Stern, Mellow, Safer, & Greifinger, 2012). Furthermore, prisoners over the age of 55 have a death rate 10 times greater than prisoners aged 25–34 (Noonan & Ginder, 2014).

Inmates are wards of the state, so the system is responsible for ensuring not only their custody and control, but also for providing their *care*. US prisons face a growing demand to provide care for aged and dying prisoners. EOL care is broadly defined as the care provided to a person in their final stages of life (National Institutes of Health, 2004). Best practices for managing geriatric and EOL care have not been consistently integrated into corrections settings. More broadly, Rich and colleagues (2014) assert that health care in many correctional institutions remains insufficient. This is at least in part due to the fact that prisons were designed “for the purpose of carrying out the sentences of inmates rather than serving as a provider of nursing home-level care” (Masters, Magnuson, Bayer, Potter, & Falkowski, 2016, p. 118). It is indeed essential that prison leaders and workers “rethink how they conduct business” (Masters et al., 2016, p. 119) if they are to humanely manage and care for the growing older inmate population, many of whom will spend their final days incarcerated.

Environmental scans are objective reviews of the current and anticipated environmental and contextual factors that impact organizations (Graham, Evitts, & Thomas-MacLean, 2008) such as prisons. A foundational understanding of a setting’s strengths and challenges can help to better serve the needs of the larger organization. This process helps organizations

evaluate evidence to plan for future projects, such as, educational training. Environmental scans are an emerging design used in settings to enhance knowledge transfer (Graham et al., 2008). Environmental scanning has been used in numerous health areas such as public health (Wilburn, Vanderpool, & Knight, 2016), acute care hospitals (Ocampo et al., 2017), training programs (Selby et al., 2015), and patient education (Delparte, Chau, Mills, & Burns, 2014).

Gaining foundational knowledge is essential if we are to develop training to meet this pressing need. The purposes of this study are to determine: current training approaches in correctional settings; training preferences of corrections personnel (e.g., nursing, medical, security, chaplaincy, psychology/counseling, etc.) in regard to content and delivery methods; and the technological capacity of correctional settings to deliver computer-based and e-learning training.

Training Approaches

A training resource that many correctional facilities use is the National Institute of Corrections (NIC), an agency within the Department of Justice, Federal Bureau of Prisons. The NIC serves all levels of corrections – federal, state, and local and provides both classroom and electronic-learning opportunities. Their courses are aimed at training officers in corrections and have foci to help develop training approaches such as instructional theory, developing effective e-learning courses, instructional design, and presentation skills (NIC, n.d.). The NIC's commitment to advancing cutting-edge approaches to training in corrections is further evidenced by their recent symposium titled Innovations in Training and Delivery (NIC, 2016). Training officers for correctional institutions are following the guidance provided by NIC.

Several correctional training programs are described in the literature (Ware, Galouzis, Hart, & Allen, 2012; Cianciolo & Zupan, 2004; Masters et al., 2016). One training program used various approaches in their face-to-face training, including: lecture, role playing, group work, fictional case studies, and demonstrations (Ware et al., 2012). Similarly, Cianciolo and Zupan (2004) used multiple delivery methods for their one-day training program, including short lectures, for which they provided copies of the PowerPoint slides, followed by discussion. They also presented short videos of nationally available content. Several interactive activities/exercises helped to break up the full day of training (Cianciolo & Zupan, 2004). Organizers of a training program with a gerontological health focus outlined their pre-planning approach to training that took into account the learning needs of the intended participants. Team meetings with corrections staff revealed a gap in the understanding of the needs of aging inmates. Also, feedback from front-line healthcare corrections workers (disciplines of workers were not specified—they did not appear to be inmates) aided in determining the focus of content areas for the training (Masters et al., 2016).

Foundational Work

The Guiding Responsive Action in Corrections at End-of-life (GRACE) Project was an early effort to define EOL care standards for prisons (GRACE Project of Volunteers of America, 2000). More recently, Quality Guidelines for Hospice and End-of-Life Care in Correctional

Settings was published by the National Hospice and Palliative Care Organization (2009), as were the more broadly focused National Commission on Correctional Health Care's (NCCCHC) *Standards for Health Services in Prisons*, which included a chapter on Care of the Terminally Ill (2014). Through the first and second authors' prior research study, *Infusing End-of-Life Care into Complex Organizations: The Prison Study* [R01NR011874], the increasing demand to care for dying inmates was addressed in state prisons in one Mid-Atlantic state (Penrod, Loeb, & Smith, 2014; Penrod, Loeb, Ladonne, & Martin, 2016). Best practices were compiled into a *Toolkit for Enhancing EOL Care*, which effectively addressed care for the dying; however, the *Toolkit* provided limited geriatric content and required reformatting for broad dissemination (Loeb, Wion, Penrod, McGhan, Kitt-Lewis, & Hollenbeak, in press).

Williams and colleagues convened a "Leadership Summit on Aging in Corrections" (2012, p. 1480) that set a policy agenda for older prisoner health care and concluded that prison palliative care services needed to be enhanced (Williams et al., 2012). Training approaches were not outlined in their policy agenda. Furthermore, a recent study by Masters and colleagues (2016) tested the effectiveness of a 2-day face-to-face training about aging inmates, using Cianciolo and Zupan's (2004) 6-hour "Issues in Aging for Correctional Workers" (p. 23) as a template. Greater than 80% of staff were satisfied with the training and believed the information provided would be useful. However, participants noted a desire for more interactive training, take-home materials, and information on malingering. Of concern is the fact that, no significant improvements in knowledge were noted between pre-test and post-test scores on the modified Facts on Aging Quiz (Masters et al., 2016). See Table 1 for a comparison of key geriatric content areas across the three aforementioned studies.

In light of the established need to effectively train corrections staff on management and care of the aged and dying in prisons, and our team's need to extend the geriatric content and transform the format of our *Toolkit for Enhancing End-of-Life Care*, the study described herein was undertaken. A short-term goal of our research is to transform the paper and electronic file Toolkit into a highly interactive computer-based learning (CBL) program we refer to as *Enhancing Care of the Aged and Dying in Prison*. The CBL program will be comprised of modules that focus on care of aging inmates and inmates at EOL separately to emphasize the individual importance of each topic. The long-term goal of the program of research is to change practice in caring for aged and dying prisoners.

Design/Methods

Our design approach was an environmental scan. Institutional Review Board approval was obtained from the university where the first and second authors are employed. The interview guide was developed by the research team, which included: nurse researchers with expertise in corrections health, geriatrics, palliative care, and/or qualitative methodology; along with team members whose expertise were in the disciplines of public health, instructional design, or psychology. The environmental scan was undertaken with prison and jail information technology (IT) and training staff from across the US (n=11). Settings to recruit the participants were selected to represent the regions of the nation (i.e., Northeast, Mid-Atlantic, Southeast, North Central, South Central, West, Nationally based), based on

demographic make-up of the inmate population and recommendations made by corrections experts on the study's Expert Advisory Board (EAB) (i.e., a corrections physician and a registered nurse who had served as a chaplain in correctional settings). This approach resulted in the plan for a co-investigator to introduce the study via email, share inclusion/exclusion criteria, and ascertain willingness to be interviewed by the Project Director using a semi-structured telephone interview (see Table 2 Interview Guide). Before conducting the interviews, the purposes and procedures of the study were explained by the Project Director, an opportunity to ask questions and have them answered was provided, and verbal consent was obtained. The participant sample was predominately male (n=9) and white (n=9). They included staff from county-wide jails (n=4), state-wide departments of corrections (n=5), and state and nation-wide contracted corrections companies (n=2). All were either training (n=5) or IT (n=6) staff. The respondents' places of employment were geographically diverse, in regards to region (i.e., Northeast n=3; Mid-Atlantic n=2; North Central n=1; South Central n=3; West n=1; Nationally based n=1) and population density (i.e., rural n=2; urban n=5; and mixed n=2). The Southeast was the only region of the US that was not represented among those who agreed to participate.

The environmental scan's Interview Guide questions focused on the following: insights regarding technology capacity; standard training approaches; experience with commercial training products; and predictions about future trends in training within correctional settings. Interviews were digitally recorded and each lasted approximately 45 minutes. Interviews were transcribed verbatim, and transcripts were verified and cleaned. Recruitment was ceased after thematic saturation of the data was reached. Content analysis was completed using a team approach to develop a taxonomy of responses to key inquiries. In addition, we reviewed our findings with our EAB members, who included one corrections physician and three nurses each of which had a decade (or more) of experience in one or more of the following specialties: palliative care; geriatrics; and/or corrections health. The physician had earned an MPH in addition to his MD. The three nurses had various academic preparations for their highest degree earned including baccalaureate (n=1), Masters (n=1), and PhD (n=1).

Results

Findings from the interviews focused on: desirable and undesirable qualities of training sessions; the prominence of "homegrown" training products; content/focus of training; and feasibility of commercial e-learning for staff.

Desirable and undesirable qualities of training sessions

Key findings related to desirable characteristics of training sessions included a delivery format that would allow for "asynchronous" learning. Start/stop features were highly regarded because they allowed staff to stop a module in the event that they need to attend to pressing work issues, and later resume the module where they left off. "Short informational videos...like YouTube..." were regarded positively, as were "...interactive...keep it moving kinds of presentations" and intensive modules that were only "15 minutes" in duration or delivered "in small chunks" because staff attention spans were reportedly "short." If training

was delivered in group sessions, "...multiple sessions of the same training" were suggested "...in order to hit different shifts and... [so] people can cover for each other."

Undesirable characteristics of training sessions included challenges or pitfalls to avoid. One participant noted, "...One of the challenges that any healthcare trainer who is academically affiliated is getting the credibility...Just because you are from some university or other, that doesn't buy you anything in their book...NIC is a good way to get that credibility stamp." An approach to avoid was "death by PowerPoint" because, "if training is didactic and in lecture format, you tend to get people taking naps."

The prominence of "homegrown training products"

To control the cost of training, many correctional settings rely heavily on "home grown" products or a "hybrid of homegrown and...outside sources" and "base that training on best practices and evidence-based care." "Home grown" refers to trainings that are developed in-house by IT and Training Officers within a specific facility for their institution-specific employees. This practice is explained as: "We try to develop training that is free to our staff. That's a big issue because budgets are limited..." The importance of relevant context was emphasized in filming for homegrown videos "at the facility...so when somebody sees it, they go, 'Oh that's a visiting room in [specific prison]...and it gives them the appropriate reference point."

Still another participant recounted a shift to delivering online training, "I think it's really been sort of an evolution for our staff...I have a mix of some veteran staff and some newer staff, but all of them have...gravitated towards online learning ..." The amount of materials developed was considerable in some institutions, with one Instructional Designer noting that "next year we're on slate to develop and deliver 45 courses."

Content/focus of training

Some participants stressed the importance of addressing the care issues of particular inmate groups: "there's a huge need for training in special populations...that's especially true for the aging inmate population, huge, huge need... it may be close to the top of my own priorities" and "...many, many people see a need for training and structure around quality healthcare in the aging inmate population and especially at end of life...it would be really well received." Other areas of training need that were noted by at least one participant were: "...training and diversion of inmates with infirmities or disabilities from long-term restrictive housing/segregation"; "gender dysphoria and transgender issues"; "reentry planning and continuity of care; and on managing "ADLs" for those with "infirmities or disease processes."

Feasibility of commercial e-learning for corrections staff

Findings related to the feasibility of commercial e-learning for corrections staff are presented in the following sub-categories: access to needed equipment, connections, and space; staff comfort with technology; receptivity to commercial products; and future trends.

Access to needed equipment, connections, and space—Technological capacity across institutions was variable with some systems being quite sophisticated, while others were very limited in their capacity to push commercial training to institutions within a system or host e-learning. Access to the Internet, computers, and videoconferencing equipment was generally available, but with some restrictions/limitations based on role, department, and facility. One participant gave examples of levels of access: [there is] a filtering group that determines what people can access.” Employee role and responsibilities determined access.

Other responses focused on needed equipment with some institutions reporting no specifically dedicated computer learning stations. In contrast, another participant reported that his jail had 34 computer learning stations available for training purposes and described the Internet inside the training rooms as being “fully available” and reported that “95 percent” of his jail’s training was delivered using CBL with multiple people utilizing computers in one room. In sharp contrast, one participant from a large state prison system described the availability of the Internet inside training rooms as being “zero.” Yet another participant shared that kiosks were available to staff in their state prison, which “allow those staff to...get into our learning management system and to other generic applications that would be informational to them.” While internet access for training purposes is limited in some correctional settings, Intranet availability was described as being used “almost universally” and they were described as being “generally pretty robust” and “pretty vibrant.”

The number of participants who could receive simultaneous training in video-conference rooms in correctional facilities was quite variable—from as few people as “two to three” to as many as “30–40.” One example was videoconference use for group training; specifically, the NIC “just did a big webinar in multiple facilities.” Another participant stated, “we handle videoconferencing in every one of our facilities...In some places we have two.”

Access to DVD players for training was variable. Some DVD players were within videoconferencing space. Another participant indicated the flexibility to either show videos on a DVD player or via “our LMS [learning management system], Moodle.” Purchasing videos were based on recommendations from “staff” or the “curriculum manager”; however, permission was needed from the “business office if there’s money to approve the purchase.” Others described less access to such equipment: “some correctional systems do not like to have CDs or DVDs brought in and it’s better...to have the training outside of the secured perimeter in a training facility or in the administrative building....” Lack of a DVD player or videos could reportedly be overcome: “we...use the NIC as a resource, so there’s a lot of video information available through them.”

Staff comfort with technology—Variability in comfort with technology was reported: we have some professionals who I would politely characterize as vintage...don’t know how to type, and are really challenged by anything that has to do with computers...[however] 80–90 percent of our staff have Smartphones of their own and are used to technology...the proportion of elderly staff who are uncomfortable is getting smaller every year...

Another participant provided more information regarding prison employees' computer skills: ...our staff from licensed vocational staff up through physicians, they're very tech-savvy... but...among some of our medical assistants, our psych techs...They haven't had formal education that demanded that they sit in front of a computer and do things...so there is more of a learning curve. It's not an inability...It's just once they get accustomed to the technology, they seem to do pretty well with it.

Receptivity to commercial products—The tendency toward use of “home grown” products, indicate a need for products to be contextually sensitive or “specific to our environment.” Few CBL products specific to corrections are available and those identified were offered through the NIC. An openness to commercial products was noted in a variety of responses from participants. The purchase of “commercial videos that are related to specific learning modules...”; hiring of “an outside vendor to improve...trainers' skill sets in multiple applications...”, an interest in commercial products that reduce “...liability concerns that was at a reasonable cost, there could be a good market for..”, and “...end-of-life compassionate kind of cognitive training...that would be real universal...”

Only two reasons why a correctional system might elect not to use commercial training products were voiced: budgetary constraints and a desire for training tailored to their particular setting. Both reasons are captured in the following quote: “Budget primarily. Frankly, I think the generic stuff, while it can have some good points or elements to it, it's just that, it's generic. So we've always tried to emphasize now this is [specific state] stuff for [specific state] people, in a [specific state] environment.”

Future trends—Some participants expected that “more online learning” would occur in corrections settings in the future. One participant believed that CBL would stay stable or increase a bit because the perceived “cost-effectiveness of it's phenomenal.” One participant projected, “it's probably going to be an ongoing situation where we're consistently working to improve the technology for both us, as well as the inmates”, while another noted that “right now [training] is instructor-led, but we are doing a big turnover to e-learning...I expect to see about 90 percent of our training [will be] through e-learning.”

The future for high-quality commercial products tailored for corrections seemed bright, with a desire for more webinars, video-conferences, and that the cost of high quality training would go down—at present it was described as being very, very expensive. Another anticipated trend was, “...we may be able to leverage using our PDA [personal data assistant] system...people will be able to go out and pluck out little mini trainings from the learning management system...” Finally, availability was noted as an anticipated convenience in the following response: “a trend is going to be flexibility of delivering it on hours, off hours. It's got to be available 24/7 for people these days.” Finally, one participant pointed out the importance of attending to “the change management piece of it, as we roll out...more e-learning, it can be quite foreign to people...you...definitely need to make sure that it is part of your overall project.”

Discussion

Desired qualities of training were interactive, hands on, short in duration, with the NIC stamp of credibility, and readily accessible (e.g., asynchronous or delivered repeatedly across shifts). The tendency toward use of “home grown” products, reflects a desire for products to be contextually sensitive. One way to achieve this would be for designers of CBL modules to use fillable templates whereby individual correctional settings could easily customize training materials for their setting (e.g., insert relevant pictures from their institution or include a brief, but compelling testimonial from a respected institutional leader).

When asked about future trends, some participants expressed both interest in and capacity for delivering CBL to enhance care of aged and dying prisoners. This finding confirmed earlier suggestions by Williams and colleagues (2012) as well as Cianciolo and Zupan (2004). The additional topical areas where training was suggested all held potential relevance to care of older inmates.

The key findings related to the feasibility of commercial e-learning for prison staff reinforced the variability of technological capacity across institutions with some systems being quite sophisticated, while others were more limited. Also notable was the trend toward greater staff confidence with technology, although older staff and staff with lower educational levels were reportedly less confident than their younger counterparts and those with at least a vocational degree.

This group of IT and training staff from prison and jail settings noted a greater willingness to pay for commercial e-learning products if those products addressed liability-driven factors or if they focused on compassionate kinds of cognitive training such as EOL care. Future trends bode well for growth in e-learning in corrections with at the minimum, stability is expected and more often considerable growth is anticipated (e.g., 90% of corrections training being via e-learning) in the next 5 years. For example, Perrett, Erricker, and Lyons (2014) delivered successful Blood Borne Virus training in Welsh prisons using e-learning and encouraged that it be considered for future trainings of prison staff.

This study provides support for our ongoing development of an innovative, technologically-appropriate e-learning program targeted to meet the needs of a highly-specialized, underserved population. If the program is comprehensive and well received, it holds strong potential for forging new territory and addressing a significant societal issue that has gone largely ignored—achieving parity in the care delivered to those aging and dying in prisons and delivering that care with sensitivity, and respect. Second, armed with the findings from this study, our *Enhancing Care of the Aged and Dying in Prison* (ECAD-P) learning system can be developed to provide cutting-edge, media-rich learning modules that are specific to the restrictive corrections setting. In addition, since approaches to training delivery can be tailored to the insights of IT and training staff—functioning within the technology and connectivity limitations of some institutional settings can be achieved, while at the same time being more interactive than the educational videos used in some correctional institution training programs. While the focus of this study was not to make distinctions between

general training for all front-line staff versus only for corrections nurses/healthcare staff, our belief is that end-of-life and aging educational content can be generalized for all front-line correctional staff, but treatment-focused education related to these areas should target correctional nurses and other correctional healthcare professionals.

Implications for Clinical Forensic Nursing Practice

Clinical Forensic Nurses who care for people in the criminal justice system can heighten their awareness of the health and environmental needs of aged and dying prisoners by appreciating prisoners' vulnerabilities and advocating for greater training for themselves and their peers within corrections settings. Provision of high quality, compassionate care for aged and dying prisoners and advocacy for such care to also be delivered by their co-workers are important initiatives. For clinical forensic nurses who are not currently technology savvy—take steps to engage in greater technology use, so that as e-learning continues to grow, as it is predicted to do and to avoid being left behind. Nurses as a whole, and health professionals in general, regardless of practice setting, should, as noted by Rich and colleagues (2014), “leverage their traditional moral authority into civic engagement on behalf of their collective patient body, which includes prisoners...” (p. 464) and work with professional societies (Rich et al., 2014) to ensure that the policy agenda set at the Leadership Summit on Aging in Corrections (Williams et al., 2012) is actualized.

There are some limitations to this study. First, the small sample size may not be reflective of all corrections institutions within the United States (e.g., the southeast). We did meet saturation in our analysis and had diversity in both our geographic locations and inmate population density. Another limitation is that our EAB is comprised solely of those with healthcare backgrounds, the exception being one member also having the dual experience of serving as a chaplain in a correctional setting. However, two of the four EAB members have worked extensively in correctional settings and are well-versed on the needs of aging and dying inmates. In addition, we did not use front-line staff as study participants. Given the scope of the study – interviewing training and IT staff was the most appropriate way to obtain depth of information on current training approaches/delivery methods, technology capacity, training needs, and personnel preferences in correctional settings. Finally, we did not explore what training is not well suited for computer-based learning—this is a potential focus for future research.

Conclusions

This study established the desire for, feasibility of, and openness to computer-based training on geriatrics and EOL care by corrections IT and training staff members. As well, we learned that it is possible to deliver CBL that fits with the technology available in the restricted corrections environment. We believe that corrections nurses are critical participants in and positioned to be strong advocates for these training innovations in order to broadly improve the quality of healthcare for aging and dying inmates. Key lessons learned from this study are that trainings must be short, intensive, engaging, interactive, and contextually sensitive to the correctional environment.

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Table 1

Comparing Staff Training Content Across Publications

Topical Areas	* Masters et al., 2016	Williams et al., 2012	* Cianciolo & Zupan, 2004
Aging or age-related changes	Age-related physical, functional, and mental health changes	Normal aging changes Common pathological age-related physical and cognitive problems and challenges raised in correctional settings	Distinguishing normal and abnormal aging Exploring perceptions of aging
Chronic Conditions		Profile of older prisoners: growing numbers and requiring assistance because of multiple chronic conditions	Identifying the most prevalent chronic conditions
Social programming or resources	Social programming for older people both in prison and in the free world		National and community aging-related resources
Health assessment and treatment		Identification of prisoners needing rapid health assessments	Identifying laws applicable to treatment of older inmates

* Note: The Masters et al., (2016) study used the approach of Cianciolo & Zupan (2004)

Table 2**Key Questions from Semi-structured Interview Guide**

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- First, we are trying to understand the technology available in your institution. Can you tell me about your IT capacity?
 - If prompts are needed, touch on: availability of such things as computer learning stations, videoconference space/capacity, DVD players; Bandwidth; internet and intranet; inmate access; and plans for new or upgraded equipment.
 - Let's turn toward training now. How would you describe the general reaction and attitude toward training?
 - If prompts are needed, touch on: comfort with technology; typical delivery; degree to which CBL is used; use of NIC training; development and characteristics of training materials; and use of commercial products.
 - Given what you know of IT demands and staff training, what trends do you expect to see in the next 5 years?
 - If prompts are needed, touch on: how demand for CBL might change; whether there will be more distance education; and what the future holds for high quality commercial products that are created for corrections settings and are available at a reasonable cost?
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