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Simulation training methods in mastering the skills of emergency medical care

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Abstract: There are results were analyzed: students' perception and digestibility of educational material on emergency pediatrics using simulation equipment.
Materials and methods of research: Simulation training is a relatively new and very rapidly developing area of medical education.
Results of the study: This teaching method is especially important for mastering the skills of emergency and emergency care for children.
Conclusion: High demands on the quality of training of doctors, limited opportunities to work out new practical skills on patients (especially children), increased attention to the safety of medical care for patients and medical personnel, and adherence to ethical standards led to a new paradigm of medical education - the use of simulation methods of training.

Keywords: higher medical education, pedagogical technologies, competence approach, simulation training.

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1. Introduction (Вступление)

O'zbekiston Respublikasi Prizidenti Shavkat Mirziyoev 20 aprel 2017 yilda «Oliy ta'limni yanada takomillashtirish chora-tadbirlari» to'g'risidagi qarorni imzoladi. Bu xujjat oliy ta'limni chuqur ko'rib chiqish va o'rganish bilan bir qatorda shu soxadagi kadrlarni qayta tayyorlash, ya'ni davlatimizning ijtimoiy-iqtisodiy rivojlanishiga mos, dunyo miqyosidagi standartlarga xos oliy ta'lim mutaxassislarini etishtirishga qaratilgan.

Shuning uchun oliy ta'lim sifatini takomillashtirish dolzarb omil bo'lib, o'qitishda ko'pkina yangi texnologiyalar va uslublar qo'llanilmoqda, shular jumlasiga simulyatsiya o'qitish uslubi kiradi.

Simulyatsiya o'qitish — Tibbiyot talabalarni xar xil vaziyatlarda real xolatga mos ravishda tibbiy yordam ko'rsatishda tajribasini oshirishga qaratilgan. Bu san'at darajasidagi zamonaviy texnologiyalar asosida, klinik vaziyatlar saxnalashtirilib tez tibbiy yordam ko'rsatish ta'lim maqsadiga erishiladi [1]. Bo'lajak shifokorlarni xar qanday soxa bo'yicha simulyatsion uslubda tayyorlash yangi va tez rivojlanayotgan tibbiy ta'limning yo'nalishidir, shundan kelib chiqadiki, undan samarali foydalanish uning dolzarbligini yanada yuksaklashtiradi. Bu uslubning muximligi, shoshilinch yordam paytida, o'quvchi xatoliklarga yo'l qo'yishdan qo'rqmasdan, bemorga zarar etkazmagan holda o'rganadi va tajribasini oshiradi. Kritik xolatlarda inson xayotiga xavf tug'dirilganda, xatoliklarga yo'l qo'yilmasdan yordam ko'rsatadi. Simulyatsion o'qitish ayniqsa pediatriya amaliyotida ko'nikmalarni o'rganish uchun zarur [2–6]. Simulyatsion o'qitish

ayniqsa pediatriya amaliyotida ko'nikmalarni o'rganish uchun zarur [2–6]. Simulyatsion o'qitishda har xil zamonaviy texnologiyalar va simulyasion manikenlardan foydalaniladi. American Heart Association (AHA), tavsiyalariga muofiq psixomotor ko'nikmalarni shakllantirgan holda kritik vaziyatlar, o'pka-yurak reanimatsiyasi (O'YuR), nafas yo'llaridan yod jismni olib tashlash va x.z., kiradi [7]. Shoshilinch tibbiy yordam ko'rsatishda ilmiy assoslangan zamonaviy yondashuv Shoshilinch pediatriya, xalokatlar tibbiyoti kafedrasida yaxshi yo'lga qo'yilgan. ToshPMI da o'quv qo'llanmalar ishlab chiqilishi, monografiyalar, bundan tashqari chet el mutaxasislari bilan birgalikda klinik protokollardan foydalaniladi [8,9].

AQSh va Evropa davlatlarida ishlab chiqilgan va qo'llaniladigan, klinik protokollarga kiritilgan dastur bo'yicha o'quv kurslari olib boriladi. Shu dasturlar bizning talabalarimizni o'qitishda xam qo'llanilib kelinmoqda, bunga misol American Heart Association (AHA) i American Academy of Pediatrics (AAP) Pediatric Emergency Assessment, Recognition and Stabilization (PEARS) — «bolalar xayotiga xavf soluvchi xolatlarni aniqlash va stabillashtirishni baxolovchi ko'nikmalarni o'rganish » [9].

2. Materials and Methods: (Материалы и методы)

Mazkur maqolada Toshkent Pediatriya Tibbiyot Instituti «Shoshilinch pediatriya, xalokatlar tibbiyoti» kafedrasining tajribasidan ANA va AAR PEARS simulyatsion o'qitish uslubi simulyatsion-manikenlarda integral o'quv jarayonlari ko'rsatilgan.

Mazkur maqolada Toshkent Pediatriya Tibbiyot Instituti «Shoshilinch pediatriya, xalokatlar tibbiyoti» kafedrasining tajribasidan ANA va AAR PEARS simulyatsion o'qitish uslubi simulyatsion-manikenlarda integral o'quv jarayonlari ko'rsatilgan.

3. Results: (Результаы и исследования)

Toshkent Pediatriya Tibbiyot Instituti qoshidagi Shoshilinch pediatriya, xalokatlar tibbiyoti kafedrasi simulyatsion o'qitish uslubi bo'yicha (2001 yildan) boy tajribaga ega. Mavjud bo'lgan 5 ta amaliy yo'nalish, talabalarni shoshilinch tibbiy yordamni o'zlashtirish, o'z ustida ishlash, amaliy ko'nikmalarni baholashda yaxshi yordam beradi.

Kafedra bazasida, simulyatsion kabinetlar mavjud bo'lib, simulyatsion manikenlar bilan jixozlangan va bolalardagi kritik xolarlarda talabalar shoshilinch yordam ko'rsatishi uchun mo'ljallangan. Pediatriya fakulteti 5 kurs talabalari (450kishi), 6 kurs davolash va kasbiy ta'lim fakultetlari (600kishi) va 2 kurs xamshiralik ishi fakulteti (50kishi) 2018-2019 yillar talabalar uchun dasturlar ishlab chiqilgan. "Shoshilinch pediatriya" ga 6 soatdan shoshilinch xolatlarda yordam ko'rsatish ko'nikmalanini o'zlashtirishga ajratilgan.

Kurs og'ir ahvoldagi bemorlarga, yangi ilmiy asoslangan shoshilinch tibbiy yordam algoritm xarakatlarini qo'llashni va bolalardagi kritik xolatlarni aniqlash, stabillashtirish, kerak bo'lganda reanimatsiya chora tadbirlarini o'tkazishni amalga oshirishni o'rgatadi . Modellashtirilgan umumiy realistik qabul qilish jarayoni mexanik, fiziologik, atrof- muxit va vaqt faktorlariga bog'liqdir. O'z navbatida aloxida simulyatsiya manipulyatsiyalari chegaralangan axamiyatga ega bo'lsada, uni o'quv dasturiga qo'shishda, talaba va o'qituvchi o'qitishning kerakli bo'lagiday qabul qilishi kerak, shundagina biz kerakli yutuqlarga erishamiz.

Tibbiy ta'lim tizimida simulyasiya bir qancha uslublarni o'z ichiga qamrab oladi, klinik vaziyatlarni o'rganish, qaytarish, baholash va tekshirishlardir. Simulyatsiya uslubi boshlang'ich darajadan verbal ko'rinishdan to mukammal yoki standartli bemorlarni simulyatsiyasini amalga oshirish mumkin.

4. Discussion (Обсуждение)

Simulyatsiya tegishli ravishda qo'llanilsa yuqori ta'lim qiymatiga egadir.

Talabalarni o'qitishda seminarlar o'tkazilib kritik xolatlarni patogenetik asoslab, shoshilinch yordam ko'rsatish algoritmi muxokama qilinadi, simulyasiya sinfida O'YuR(o'pka yurak reanimatsiyasi), nafas yo'llari o'tqazuvchanligi, anafilaktik shokda shoshilinch yordam kursatish o'zlashtiriladi.

O'qitish jarayoni natijasida talaba quyidagilarni o'zlashtirib oladi:

- bolalar xayotiga xavf soluvchi xolatlarini baholashda tizimli yondashuv;
- pediatrik bemorda nafas va yurak faoliyati to'xtaganda kerakli aniq va ustuvor xarakatlar;
- bemorda nafas va yurak faoliyati to'xtaganda nafas yo'llari o'tqazuvchanligi buzilganda, anafilaktik shokda kerakli aniq va ustuvor xarakatlar;
- bola ahvoliga xavf soluvchi belgilarni aniqlovchi ko'nikmalar;
- —Yurak –o'pka reanimatsiyasi va nafas yo'llari o'tkazuvchanligini taminlash ko'nikmalari.

Talabalar bilan birgalikda o'qituvchi simulyatsion sinfda o'zlashtirgan materiallarni ustunlik va kamchilik tomonlarini baxolagan holda ko'rib chiqishadi. Barcha talabalar teoretik bilimlarini bir vaqtning o'zida manual ko'nikmalar bilan birgalikda yuqori samarali darajada mustaxkamlaydi.

Amaliy stantsiyalarda asosiy ishlash tamoyillari quyidagilardan iborat:

- har qanday ko'nikma va stsenariyni (sahnalashtirish) tarkibiy qismini protokollarda tasfirlash.
- avval ko'nikmani namoyish qilib, so'ngra sinov tajribasida amalga oshirish.
- oddiydan-murakkabga xar bir o'quv stsenariysi yangi ko'nikmalar bilan boyitilish asosda boshlanib murakkab uslublar ortib ilg'or darajaga etadi.
- realistik – saxnalar (stsenariyalar) shaxssiz va quruq tragedik vaziyatni ko'rsatib, uning oxiri muvaffaqiyatli yoki tragedik final bilan tugaydi.
- qatnashuvchilarga stsenariy bo'yicha ko'rsatma bermoq, buyruq asosida emas balki tavsiya va maslaxat asosida amalga oshiriladi.
- stantsiyalarda ishlashning ba'zi bosqichlarida talaba protokol asosida baxolanadi
- ommaviy xodisalar taqlid qilinib, komandalar tez-tez musoboqalashadi
- tez-tez o'zaro baholash olib boriladi, gurux stsenariy qatnashchisi va jamoani baxolaydi
- stsenariy sifatli bajarilganligi muxokoma qilinadi, dastlab yutuqlar, so'ngra etishmovchiliklar eslatib o'tiladi..

5. Conclusions: (Выводы)

1. Realistik stsenariyalar asosida simulyatsion o'qitish, kompetentsiyali qodirlikka olib keladi.
2. Simulyatsion o'qitish xuquqlar tug'risidagi qonunni buzmasdan, mojarosiz, konfidentsiyallik saqlangan holda, malakali tibbiy yordam ko'rsatiladi.
3. Simulyatsion o'qitish ob'ektiv xarakatlarni bajarishga imkoniyat beradi.
4. Simulyatsion o'qitish nafaqat amaliy, balki talabani emotsional maqsadlarga erishishga, shaxslar bilan iliq aloqa o'rnatishga, psixologik aktivlik va stabillikga undaydi.
5. Simulyatsion o'qitish qimmat bo'lishi (ya'ni kompyuter manikenlar, virtual xaqiqatga ega bo'lgan trenajorlar va ekran simulyatorlari) va arzon (amaliyot simulyatorlari, standart bemorlar) bilan amalga oshiriladi.
6. Simulyatsion o'qitish uslublari bolalarda kritik xolatlardagi ahvolni baholashda, samarali davo choralarini ko'rsatishda, xalqaro tibbiy yordam standartlariga mos ravishda talabalarni nafaqat bilim balki psixomotor ko'nikmalarni qo'llagan holda, jamoa tarzida yordam ko'rsatish, talabani bilim olish samaradorligini oshiradi..

Author Contributions:

Sharipov M. Alisher - Разработка концепции и дизайна или анализ и интерпретация данных - Согласие быть ответственным за все аспекты работы, и предполагает, что должным образом исследованы и разрешены вопросы, касающиеся тщательности и добросовестном выполнении любой части представленного исследования.

Shaxnoza A.Karieva - Обоснование рукописи или проверка критически важного интеллектуального содержания - Окончательное утверждение для публикации рукописи - Согласие быть ответственным за все аспекты работы, и предполагает, что должным образом исследованы и разрешены вопросы, касающиеся тщательности и добросовестном выполнении любой части представленного исследования.

Zafar F. Safarov - Разработка концепции и дизайна или анализ и интерпретация данных - Окончательное утверждение для публикации рукописи - Согласие быть ответственным за все аспекты работы, и предполагает, что должным образом исследованы и разрешены вопросы,

касающиеся тщательности и добросовестном выполнении любой части представленного исследования.

Aziz B.Tilyakov - Разработка концепции и дизайна или анализ и интерпретация данных - Окончательное утверждение для публикации рукописи - Согласие быть ответственным за все аспекты работы, и предполагает, что должным образом исследованы и разрешены вопросы, касающиеся тщательности и добросовестном выполнении любой части представленного исследования.

Nodira H. Abrieva - Разработка концепции и дизайна или анализ и интерпретация данных - Окончательное утверждение для публикации рукописи - Согласие быть ответственным за все аспекты работы, и предполагает, что должным образом исследованы и разрешены вопросы, касающиеся тщательности и добросовестном выполнении любой части представленного исследования.

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Informed Consent Statement: От всех субъектов, участвовавших в исследовании, было получено информированное согласие.

Data Availability Statement: Оригинальные материалы, представленные в исследовании, включены в статью. Дополнительные запросы могут быть направлены к корреспонтдент автору.

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