Examining the Feasibility of Training Pre-Service Agriculture Educators in a Mental Health and Wellbeing Curriculum

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Abstract

Agriculture education student teachers in Kentucky and Georgia were trained on *DBT in Schools: Skills Training for Emotional Problem Solving for Adolescents* (DBT STEPS-A) during January 2024. The DBT STEPS-A training included pre-work, one eight-hour training session, and one three-hour training session. The student teachers were evaluated with a retrospective pre-post survey to assess their knowledge of key concepts and confidence in implementing DBT STEPS-A. The appropriateness, acceptability, and feasibility of the intervention were also examined after the training. Student participants reported valuing the DBT STEPS-A training and felt confident in using it in their future teaching careers. Student participants also reported increased knowledge in mindfulness, emotional regulation, interpersonal effectiveness, and distress tolerance by 44%. Moreover, student teacher confidence in implementing DBT STEPS-A increased by 45.3% across all skills assessed.

DBT STEPS-A

- DBT STEPS-A is a **social-emotional curriculum** designed to be presented in a general education setting based on Dialectical Behavioral Therapy (DBT).
- It is designed to **teach adolescents skills** rooted in DBT to help them become more **resilient** in the face of life's challenges.
- DBT in Schools, in collaboration with **Building Bridges to Farmer Mental Health**, adapted the 30-lesson curriculum to better fit into an **Agriculture Classroom.**

Methods

Participants

- 46 Agriculture Education undergraduate students from programs in Kentucky and Georgia participated in the training.
- All students were in their final semester of their program and were completing their student teaching requirement.

Training

- The typical 3-day implementation training was adapted to fit the rigorous schedule of the student teachers.
- The modified training included pre-work, one eight-hour training session, and one three-hour session.
- Training was completed in January 2024.

Measures

- Measurement of feasibility, acceptability, and appropriateness of DBT STEPS-A was attained through an online retrospective pre-post survey.

Results

Student Teacher Confidence	Pre-Training Mean (SD)	Post-Training Mean (SD)	Mean Difference	Percent Change	P-value
Leading a mindfulness activity	2.30 (1.295)	3.26 (1.484)	0.96	41.7%	0.001*
Debriefing or leading a discussion about mindfulness	2.22 (0.998)	3.13 (1.254)	0.91	41%	0.002*
Facilitating a peer-peer homework review about mindfulness	2.17 (1.154)	3.13 (1.254)	0.96	44.2%	0.002*
Introducing the main ideas of a skill related to mindfulness	2.04 (1.022)	3.17 (1.403)	1.13	55.4%	0.002*
Providing examples of a new skill related to mindfulness	2.09 (0.949)	3.22 (1.413)	1.13	54.1%	<0.001*
Demonstrating a new skill related to mindfulness	2.13 (0.968)	3.22 (1.380)	1.09	51.2%	<0.001*
Facilitating a lesson activity related to mindfulness	2.14 (0.990)	3.32 (1.393)	1.18	55.1%	<0.001*
Classroom management	2.95 (1.431)	3.71 (1.419)	0.76	25.8%	0.025*
Overall	2.25	3.27	1.02	45.3%	---

Conceptual Knowledge	Pre-Training Mean (SD)	Post-Training Mean (SD)	Mean Difference	Percent Change	P-value
Mindfulness	2.30 (1.105)	3.09 (0.125)	0.79	34.3%	0.021*
Emotional Regulation	2.30 (0.974)	3.17 (1.193)	0.87	37.8%	0.005*
Interpersonal Effectiveness	2.09 (0.949)	3.04 (1.186)	0.95	45.5%	<0.001*
Distress Tolerance	2.00 (0.853)	3.22 (1.445)	1.22	61%	<0.001*
Overall	2.17	3.13	0.96	44.2%	---

* Indicates statistically significant result when $p \leq 0.05$

Results

The following data was assessed post-training only using a Likert scale 1 (Completely Disagree) to 5 (Completely Agree).

Appropriateness

- After training, participants indicated they neither agreed nor disagreed (*M*=3.15 (SD= 1.11)) on the appropriateness of the curriculum.

Acceptability

- Participants indicated they neither agreed nor disagreed on if the curriculum was suitable for their classrooms (*M*= 3.26 (SD= 0.98)).

Feasibility

- Feasibility results (*M*=3.18 (SD= 0.98)) indicated student teachers neither agreed nor disagreed if they could teach this curriculum.
- Qualitative data indicated student teachers faced time constraints covering state-required Agriculture content and DBT STEPS-A lessons with little time to cover DBT STEPS-A lessons in the classroom.

Discussion

Findings

- The DBT STEPS-A training showed a statistically significant **impact on all measured training outcomes**.
- Due to logistical issues, **the training was adapted** to a hybrid instruction style for DBT STEPS-A.
- Students reported needing **more support** to implement DBT STEPS-A in the classroom successfully.
- Students and faculty indicated that **additional preparation would make them feel more confident** in their ability to implement DBT STEPS-A.

Future Directions

- Create a cross-walk between the state agriculture education curriculum and DBT STEPS A lessons.
- Embed the 3-day implementation training into a course.
- Pilot **Agriculture classroom-specific examples** to use during the implementation training.

Limitations

- For this group of participants, we used a retrospective pre-post-test design.
- We used convenience sampling with a small sample size (N=23); therefore, the results may not be generalizable.

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