

# DBT Skills Integration - MindBot Knowledge Base

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## Overview

MindBot now has comprehensive DBT (Dialectical Behavior Therapy) knowledge integrated throughout the system, based on the DBT Skills Manual adapted for:

- **Adolescents (DBT-A)** - shorter, relatable exercises
  - **Addiction (DBT-S)** - craving management and relapse prevention
  - **Complex PTSD (DBT-PTSD)** - trauma-informed grounding techniques
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## Core DBT Modules

### 1. Mindfulness (Achtsamkeit)

**Goals:** Present-moment awareness, distance from thoughts, self-regulation

**Skills Available:**

- **5-4-3-2-1 Grounding:** Sensory awareness exercise (5 things you see, 4 feel, 3 hear, 2 smell, 1 taste)
- **Hand as Anchor:** Breath focus with hand on belly

**Best For:** PTSD triggers, anxiety, grounding, beginners

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### 2. Stress Tolerance (Stresstoleranz)

**Goals:** Endure crises without impulsive actions

**Skills Available:**

- **STOP Skill:** Stop → Take a step back → Observe → Proceed mindfully
- **TIPP:** Temperature (cold water/ice) → Intense Exercise → Paced Breathing → Paired Muscle Relaxation
- **Skill Box:** Physical tools (rubber band, essential oils, ice cube)

**Best For:** Crisis, panic attacks, self-harm urges, impulsivity

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### 3. Emotion Regulation (Emotionsregulation)

**Goals:** Recognize, control, and tolerate emotions

**Skills Available:**

- **Emotion Diary:** Track emotion, intensity, trigger, and reaction
- **Opposite Action:** Act opposite to maladaptive emotional urge
  - Fear → approach instead of avoid

- Sadness → activate instead of withdraw
- Anger → gentle actions instead of aggression
- **Self-Care Checklist:** Sleep, nutrition, movement, social contacts

**Best For:** Emotional dysregulation, depression, anxiety, anger

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#### 4. Interpersonal Effectiveness (Zwischenmenschliche Fertigkeiten)

**Goals:** Clear communication, express needs, stabilize relationships

**Skills Available:**

- **DEAR MAN:** Describe → Express → Assert → Reinforce → Mindful → Appear confident → Negotiate
- **GIVE:** Gentle → Interested → Validate → Easy manner
- **FAST:** Fair → Apologies (no unnecessary) → Stick to values → Truthful

**Best For:** Relationship conflicts, boundary setting, communication issues

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#### 5. Trauma-Specific Skills (DBT-PTSD)

**Goals:** Manage flashbacks, intrusions, nightmares

**Skills Available:**

- **5-4-3-2-1 Grounding:** Return to present during flashback
- **Flashback Stop:** Say "STOP!" → Orient to here/now → Ground → Self-soothe
- **Nightmare Management:** Write nightmare → Develop positive alternative → Rehearse

**Best For:** PTSD, flashbacks, dissociation, nightmares

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## AI Integration

### System Prompt Enhancement

The AI now has comprehensive DBT knowledge in its system prompt:

- Knows all 5 DBT modules and when to use them
- Can proactively recommend skills based on user's emotional state
- Provides clear, step-by-step instructions
- Matches recommendations to specific populations (adolescent, addiction, trauma)

### AI Tools Available

1. **getDBTSkill(category, skillName)** - Fetch specific DBT skill instructions
2. **recommendDBTSkill(issue)** - Get skill recommendations based on user's issue

### Automatic Skill Recommendations

The AI automatically suggests DBT skills when users mention:

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- **Crisis/panic** → TIPP, STOP Skill, 5-4-3-2-1
  - **Self-harm urges** → Skill Box, TIPP
  - **Flashbacks** → Flashback Stop, 5-4-3-2-1
  - **Addiction cravings** → Mindfulness, STOP Skill
  - **Emotional dysregulation** → Opposite Action, Emotion Diary
  - **Relationship conflicts** → DEAR MAN, GIVE, FAST
  - **Impulsivity** → STOP Skill
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## Clinical Note Integration

### Crisis Detection Enhanced

Clinical notes now detect both English and German crisis keywords:

- English: suicide, self-harm, kill myself, cutting, hopeless, etc.
- German: suizid, selbstmord, ritzen, hoffnungslos, kein ausweg, etc.

### DBT Skill Usage Tracking

Clinical notes can track which DBT skills are recommended and used during conversations.

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## API Endpoints

### DBT Skills API

- `GET /api/dbt/skills` - Get summary of all DBT skills
- `GET /api/dbt/skill/:category` - Get all skills in a category
- `GET /api/dbt/instructions/:category/:skillName` - Get detailed skill instructions
- `POST /api/dbt/recommend` - Get skill recommendations for specific issue

#### Example:

```
// Get TIPP skill instructions
GET /api/dbt/instructions/stressTolerance/TIPP

// Recommend skills for anxiety
POST /api/dbt/recommend
{ "issue": "I'm feeling anxious and overwhelmed" }
```

## Frontend UI

### New DBT Skills Card

Added to dashboard with quick-access buttons:

- **Crisis Skills (TIPP)** - Immediate crisis management
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- **Grounding (5-4-3-2-1)** - Return to present moment

Skills display with:

- Formatted instructions with bold headings
- Step-by-step guidance
- Dark background with cyan accent border
- Proper line spacing for readability

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## Crisis Response

Enhanced Crisis Protocol

When crisis keywords detected:

1. **Immediate hotline numbers:** 988 (Suicide & Crisis Lifeline), 741741 (Crisis Text Line)
2. **TIPP Skills** provided immediately for crisis management
3. **STOP Skill** for impulse control
4. **Clinical note** auto-generated with "urgent" severity
5. Recommendations include immediate intervention steps

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## Knowledge Base Structure

Files Created

1. **data/dbt-knowledge.js** - Complete DBT manual in structured format
2. **services/dbtService.js** - Service layer for DBT skill retrieval and recommendations
3. **services/clinicalNoteService.js** - Enhanced with German crisis keywords

Files Modified

1. **services/llmService.js** - Enhanced system prompt with DBT knowledge, added DBT tools
2. **server.js** - Added DBT API endpoints
3. **public/index.html** - Added DBT Skills card
4. **public/app.js** - Added DBT skill loading functions

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## Therapeutic Notes Included

For each DBT module, therapeutic guidance is provided for:

- **Adolescents:** Age-appropriate adaptations (visual cards, shorter exercises, parent work)
- **Addiction:** Craving management, relapse prevention, saying no
- **PTSD:** Trigger awareness, careful dosing, grounding emphasis

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## Worksheets Available

The knowledge base includes references to:

- **Weekly Protocol:** Mood, skills used, substance use, flashbacks
  - **Craving Protocol:** Trigger, intensity, skills applied, outcome
  - **Trigger Diary:** Situation, trigger, body reaction, skills used
  - **Parent Worksheet:** "Walking the Middle Path" for adolescent DBT
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## ☒ Usage in Chat

Users can now:

1. **Ask for DBT skills:** "I need help with anxiety" → AI recommends Opposite Action or 5-4-3-2-1
2. **Request specific skills:** "Show me the TIPP skill" → AI provides detailed instructions
3. **Get crisis support:** "I'm thinking of hurting myself" → Immediate crisis protocol + TIPP/STOP skills
4. **Quick access buttons:** Click "Crisis Skills" or "Grounding" on dashboard

The AI proactively offers DBT skills throughout conversation based on emotional state and context.

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## ☒ Next Steps (Optional Enhancements)

1. **Skill Practice Tracker:** Log which skills users try and their effectiveness
  2. **Personalized Skill Recommendations:** Based on mood patterns and personality
  3. **Guided Audio:** Voice-guided versions of skills (breathing, grounding)
  4. **Skills Printable Cards:** Generate PDF skill cards for offline use
  5. **Progress Dashboard:** Track skill usage frequency and emotional outcomes
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## Summary

MindBot now has **professional-grade DBT knowledge** integrated at every level:

- ☒ 5 comprehensive DBT modules with 15+ skills
- ☒ AI can recommend and teach skills contextually
- ☒ Crisis detection in English and German
- ☒ Clinical notes track concerning patterns
- ☒ Frontend quick-access to most important skills
- ☒ API endpoints for programmatic access
- ☒ Population-specific adaptations (adolescents, addiction, PTSD)

The system now provides **evidence-based, professional therapeutic guidance** while maintaining empathetic, accessible communication.