



*The National Alliance of Pupil Services Organizations (NAPSO) is a coalition of national professional organizations whose members provide a variety of school-based prevention and intervention services to assist students in becoming effective learners and productive citizens. NAPSO organizations represent over a million members, including school counselors, school nurses, psychologists, school psychologists, social workers and school social workers; occupational therapists, physical therapists, art therapists, dance/movement therapists, and music therapists; speech-language pathologists and audiologists; teachers, students, parents, and administrators. NAPSO promotes interdisciplinary practice and cooperation and advocates for ensuring access to quality pupil services for all students.*

## **Effective Pupil Services: Research, Data, and References**

### **Pupil Service Personnel**

- ❖ **Provide a variety of intervention and prevention services to promote effective classroom learning;**
  - ❖ **Provide educational programs and activities that support student learning and teaching;**
  - ❖ **Help to remove students' barriers to learning, including substance abuse, violence, and emotional disturbances; and**
  - ❖ **Work with teachers and administrators to develop a positive school climate.**
- 
- Center for Mental Health Services. (2000, November) Addressing Barriers to Student Learning & Promoting Healthy Development: A Usable Research-Base.
  - Center for Mental Health in Schools. (1999). Policymakers' guide to restructuring student support resources to address barriers to learning.
  - Schools and Health, Institute of Medicine, National Academy Press, Washington, DC, 1997.
  - Boutwell and Myrick, 1992, as cited in Otwell, Patricia S., Mullis, Fran (April 1997). Academic achievement and counselor accountability. *Elementary School Guidance & Counseling*.
  - Lapan, R. T., Gysbers, N. C., & Sun, Y. (March/April 1997) The Impact of More Fully Implemented Guidance Programs on the School Experiences of High School Students: A Statewide Evaluation Study, *Journal of Counseling & Development*.
  - Perry, N. S. (1992, December). Educational Reform and the School Counselor, ERIC Clearinghouse on Counseling and Personnel Services.

### **Art Therapy Services**

Art therapy services in the school setting can be tailored to support academic and social/emotional requirements. Students in individual art therapy may work toward improved cognitive growth, emotional control, the mastery of sensory-motor skills, and positive adjustment to the classroom experience. School art therapy services have been successfully used to facilitate students' ability to function as effectively as possible within the academic environment.

- ❖ **Art therapy services implemented for students in a ninth-grade English classroom of an urban high school were successful in reducing drop-out rates, decreasing school failure, and improving students' attitudes about school, family, and self.**
- 
- Rosal, M., McCulloch-Vislisisel, S., & Neese, S. (1997). Keeping students in school: An art therapy program to benefit ninth grade students. *Art Therapy: Journal of the American Art Therapy Association*, 14(2), 30-36.

- ❖ **A 12-year-old female whose academic performance decreased after her parents divorced received art therapy treatment, which focused on problem solving and self-concept. Art therapy was found to be a useful school-based intervention, as results indicated a notable increase in both self-concept and academic performance.**
  - Pleasant-Metcalf, A. & Rosal, M. (1997). The use of art therapy to improve academic performance. Art Therapy: Journal of the American Art Therapy Association, 14(1) 23-29.
- ❖ **Twenty-five elementary school children who were victims of the Los Angeles earthquake in 1994 received art therapy services, which were instrumental in accessing the children's internal processes and helping them return to normal functioning.**
  - Roje, J. (1995). LA earthquake in the eyes of children: Art therapy with elementary school children who were victims of disaster. Art Therapy: Journal of the AATA, 12(4), 237-243.
- ❖ **Art therapy treatment implemented with two boys who had similar classroom behavior disorders was found to be effective in altering locus of control and in improving behavior.**
  - Rosal, M. (1993). Comparative group art therapy research to evaluate changes in locus of control in behavior disordered children. The Arts in Psychotherapy, 20(3) 231-241.
- ❖ **Pregnant adolescent females from economically and socially disadvantaged environments participated in a comprehensive treatment program enhanced by art therapy, which provided them with opportunities for positive self-growth.**
  - Stiles, G. & Mermer-Welly, M. (1998). Children having children: Art therapy in a community-based early adolescent pregnancy program. Art Therapy: Journal of the AATA, 15(3), 165-176.
- ❖ **A group of university professors helped graduate art therapy students and special education students facilitate the total educational, emotional, and physical development of the children in their classes.**
  - Bloomgarden, J. & Schwartz, D. (1997). Creative art therapy/ Special education in higher education: Toward an interdisciplinary model. Art Therapy: Journal of the AATA, 14(4), 279-281.

### **Dance/Movement Therapy Services**

Since 1974 Dance/movement therapists have provided services to children in regular and special education classes in schools and agencies across the country. Dance/movement therapy is used to enhance learning, improve physical skills, and address emotional and social difficulties through the nonverbal medium. Increasing these aspects of a child's development assists children to take full advantage of the learning environment. Research supports the unique contribution of Dance/movement therapy to children, families, and teachers.

- ❖ **Dance/movement therapy techniques utilized to foster parenting skills resulted in positive changes in awareness of nonverbal interaction, increased quality of interactions, and increased coping skills to aid in infant-parent conflict.**
  - Murphy, J. (1998). Nonverbal interventions with infants and their peers. American Journal of Dance Therapy, 20, #1.
- ❖ **Reports indicate at-risk pre-school children with attention difficulties who received dance/movement therapy over 6 months increased their attention duration in desk, group, and gross motor activity. Attention during table tasks increased in 98% of children and group tasks attention improved for 82% of children.**

- Dulicai, D., (1996). American Dance Therapy Association Research Panel Presentation.
- ❖ **Dance/movement therapy sessions were offered within a comprehensive health program in regular classrooms to foster coping mechanisms for dealing with bullying. Students reported increased ability to mediate with peers and gained positive solutions to bullying.**
  - Beardall, N. (2001) Confronting Intolerance and Bullying, Comprehensive Health Program, Oak Hill Middle Schools, Maine.
- ❖ **Dance/movement therapy sessions were integrated into the curriculum of children in regular and special education classes after a successful pilot project in Madison, WI. Reduction of violence and better resolution of conflict assisted children to feel safe and secure.**
  - Kornblum, R. (2000). Disarming the playground: Violence prevention through movement and pro-social skills. Woods & Barnes Publishing.
- ❖ **A study measuring test anxiety in 29 university students reported significantly reduced anxiety in students receiving dance/movement therapy as compared with the control group.**
  - Erwin-Grabner, Goodill, Hill & Dristen. (1999). American Journal of Dance/Movement Therapy, Vol. 21, No. 1.
- ❖ **Methods of evaluating children’s developmental milestones using DMT principles and relating them to changes in behavior are defined.**
  - Cohen, Susan, 2000. Dance/Movement therapy for principles into child life practice, Vol. 2, No 2, Fall.
- ❖ **An eight-year research project describes the use of measuring progress of child development through the use of this movement profile.**
  - Loman, S., Kestenberg Amighi, J., Lewis, P. & Sossin, K.M., 1999. The meaning of movement: Developmental and clinical perspectives of the Kestenberg movement profile.
- ❖ **Successful measurement of educational progress of children in a multi-cultural setting.**
  - Wengrower, Hilda. 2001. Arts therapies in educational settings: An intercultural encounter. The Arts in Psychotherapy, Vol 28 (2): 109-115.

### **Music Therapy Services**

Music Therapy is an established health profession in which music is used to address physical, emotional, cognitive, behavioral and/or social functioning. Music therapy can facilitate development in communication and sensori-motor skills as well as stimulate attention and increase motivation to participate more fully in other aspects of the educational setting. Recognized as a related service, music therapy serves as an integral component in helping the child with special needs attain educational goals identified by his/her IEP team, either through direct or consultant services.

- Standley, J.M. (1996). A meta-analysis on the effects of music as reinforcement for education/therapy objectives. Journal of Research in Music Education, 44(2), 105-133.

- ❖ **Preschool children in an early intervention music therapy program show high on-task behavior during sessions and a high success rate in language development, social skills, cognitive concepts, motor skills, and music knowledge.**
  - Standley, J.M., & J.E. Hughes (1996). Documenting developmentally appropriate objectives and benefits of a music therapy program for early intervention: A behavioral analysis. Music Therapy Perspectives, 14 (2), 87-94.
- ❖ **Research demonstrates the efficacy of music used in the curriculum to enhance literacy skills. Musical cueing is effective to improve word recognition, logo identification, print concepts and prewriting skills of children in early intervention programs. Shared reading paired with song rehearsal of text facilitates greater text accuracy than spoken rehearsal with kindergarten students.**
  - Colwell, CM. (1994). Therapeutic applications of music in the whole language kindergarten. Journal of Music Therapy, 31(4), 238-247.
  - Register, D. (2001). The effects of an early intervention music curriculum on pre-reading/ writing. Journal of Music Therapy, 38(3), 239-248.
  - Standley, J., & Hughes, J. (1997). Evaluation of an early intervention music curriculum for enhancing pre-reading/writing skills. Music Therapy Perspectives, 15, 79-86.
- ❖ **Selected verbal language and speech skills are enhanced through music activities in special education populations. Musical presentation of new vocabulary words results in an increased number of words learned and transferred in elementary school-age children. Music is effective as a prompt and reinforcer to increase verbal response in preschool-age children with limited verbal communication.**
  - Braithwaite, M. & J. Sigafos (1998). Effects of social versus musical antecedents on communication responsiveness in five children with developmental disabilities. Journal of Music Therapy, 35(2), 88-104.
  - Buday, E.M. (1995). The effects of signed and spoken words taught with music on sign and speech imitation by children with autism. Journal of Music Therapy, 32(3), 189-202.
- ❖ **Research supports the use of music to structure and organize information in order to increase learning and retention of number concepts. Sequential verbal information, such as telephone numbers and multiplication tables, set to melodic and rhythmic patterns are more effectively memorized and recalled than through non-music presentation.**
  - Claussen, D., & Thaut, M. (1997). Music as a mnemonic device for children with learning disabilities. Canadian Journal of Music Therapy, 5, 55-66.
  - Wolfe, D., & Hom, C. (1993). Use of melodies as structural prompts for learning and retention of sequential verbal information by preschool students. Journal of Music Therapy, 30(2), 100-118.
- ❖ **Music-facilitated interactions and structured instrument playing are effective to improve social skills in school-age populations. Social problem solving skills in 5-year-old students are increased on a long-term basis through creative musical activities. Positive affect induced by music helps to improve social problem solving skills in middle school students.**
  - Bryan, T., Sullivan-Burstein, K., & Mathur, S. (1998). The influence of affect on social-information processing. Journal of Learning Disabilities, 31(5), 418-426.
  - Ulfarsdottir, L., & Erwin, P. (1999). The influence of music on social cognitive skills. The Arts in Psychotherapy, 26(2), 81-84.

### **Occupational Therapy**

School-based occupational therapy focuses on helping students engage in important learning activities, or “occupations,” needed to participate successfully in school activities and routines. Services include evaluation and assessment, intervention, prevention, and health and wellness promotion, and address students’ underlying

motor, process and communication/interaction skills and their impact on performance. Occupational therapists work with students individually and in small groups and consult with parents, teachers and other school personnel to help raise student achievement and school success.

❖ **Systematic, individualized training in copying, tracing and tracking may improve children's handwriting.**

- Robin, A. L., Armel, S., & O'Leary, K. D. (1975). The effects of self-instruction on writing deficiencies. Behavior Therapy, 6, 178-187.
- Sovik, N. (1984). The effects of a remedial tracking program on writing performance of dysgraphic children. Scandinavian Journal of Educational Research, 28, 129-147.
- Sovik, N. (1981). An experimental study of individualized learning/instruction in copying, tracking, and handwriting based on feedback principles. Perceptual and Motor Skills, 53, 195-215.

❖ **A range of service delivery approaches can be effective in delivering occupational therapy services in schools.**

- Dunn, W. (1990). A comparison of service provision models in school-based occupational therapy services: A pilot study. The Occupational Therapy Journal of Research, 10, 300-320.
- Palisano, R. J. (1989). Comparison of two methods of service delivery for students with learning disabilities. Physical and Occupational Therapy in Pediatrics, 9, 79-100.

❖ **Occupational-based intervention may yield gains in measures of intelligence and language/communication.**

- Barcai, A, Umbarger, C., Pierce, T., & Chamberlain, P. (1973). A comparison of three group approaches to under-achieving children. American Journal of Orthopsychiatry, 43, 133-141.

### **Psychological Services**

Psychological services in schools combine the science and practice of psychology with children, youth, families, learners of all ages, and the education process. Psychologists and school psychologists provide a range of psychological assessments, intervention, prevention, crisis response, individual, group, and family counseling, teacher consultation, health promotion, and program development and evaluation services, with a special focus on the developmental processes of children and youth within the context of schools, families, and other systems.

❖ **School-based prevention and youth development programming can positively influence a diverse array of social, health, and academic outcomes.**

- Greenberg, M. T., Weissberg, R. P., Utne O'Brien, M., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. American Psychologist, 58(6/7), 466-474.

❖ **Expanded school mental health services in elementary schools have been found to reduce special education referrals and improve aspects of the school climate.**

- Bruns, E. J., Walrath, C., Glass-Siegel, M., & Weist, M. D. (2004). School-based mental health services in Baltimore: Association with school climate and special education referrals. Behavior Modification, 28(4), 491-512.

❖ **School-based mental health programs for elementary school children experiencing severe emotional and behavioral difficulties have demonstrated reductions in conduct disorder behavior, attention deficit/hyperactivity, and depression.**

- Hussey, D. L., & Guo, S. (2003). Measuring behavior change in young children receiving intensive school-based mental health services. Journal of Community Psychology, 31(6), 629-639
- ❖ **Consultation has been found to yield positive results such as remediating academic and behavior problems for children in school settings, changing the teacher's and parent's behavior, knowledge, attitudes and perceptions.**
  - Sheridan, S. M., Welch, M., & Orme, S. F. (1996). Is consultation effective: A review of outcome research. Remedial and Special Education, 17, 341-354.
  - Gutkin, T. & Curtis, M. J. (1999). School-based consultation theory and practice: The art and science of indirect service delivery. In C.R. Reynolds & T. B. Gutkin (Eds.), The Handbook of School Psychology (3<sup>rd</sup> edition) (p. 598-637). New York: John Wiley.
- ❖ **The use of functional behavioral assessments serves to increase the efficacy of interventions. Of 148 intervention cases based on functional assessment, 98.7 percent had outcomes indicating successful behavior change.**
  - Ervin, R. A., Radford, P. M., Bertsch, K., Piper, A. L. Ehrhardt, K. E., & Poling, A. (2001). A descriptive analysis and critique of the empirical literature on school-based functional assessment. School Psychology Review, 30, 193-210.

### Speech-Language Pathology Services

Speech-language pathologists provide services for students with speech, language, and swallowing disorders and provide services to students with other disabilities such as learning disabilities, autism, cerebral palsy, and mental retardation/developmental disabilities. Other important roles for speech-language pathologists involve collaborating with teachers to develop and provide intervention strategies to enhance literacy skills and intervention to improve social communication skills for all students.

- ❖ **Teachers and parents recognize the benefits of speech-language pathology services.**
- ❖ **Speech-language pathology services are an important determinant of students' eventual communicative functioning.**
- ❖ **Caseload characteristics appear to play a role in influencing student outcomes. Larger caseloads limit the range of service delivery options.**
  - American Speech-Language-Hearing Association. (2000). National Data Report 1999–2000: National Outcomes Measurement System. Rockville, MD.
  - Russ, S., Chiang, B., Rylance, B., & Bongers, J. (2001). Caseload in special education: An integration of research findings. Exceptional Children, 67(2), 161–172).
- ❖ **Research supports a link between instructional group size and student engagement for students with moderate disabilities.**
  - American Speech-Language-Hearing Association. (2002). A workload analysis approach for establishing speech-language caseload standards in the schools. Technical report. Rockville, MD.
  - Algozzine, B., Hendrickson, J., Gable, R., & White, R. (1993). Caseloads of teachers of students with behavioral disorders. Behavioral Disorders, 18, 103–109.
  - Thurlow, M., Ysseldyke, J., Wotruba, J., & Algozzine, B. (1993). Instruction in special education classrooms under varying student-teacher ratios. Elementary School Journal, 93(3), 305–321).
- ❖ **A relationship exists between instructional group size and academic achievement.**
  - Algozzine, B., Hendrickson, J., Gable, R., & White, R. (1993). Caseloads of teachers of students with behavioral disorders. Behavioral Disorders, 18, 103–109.

- Gottlieb, J., & Alter, M. (1997). An evaluation study of the impact of modifying instructional group sizes in resource rooms and related service groups in New York City. New York: New York University. (ERIC Document Reproduction Service No. ED 414 373).
- Thurlow, M., Ysseldyke, J., Wotruba, J., & Algozzine, B. (1993). Instruction in special education classrooms under varying student-teacher ratios. Elementary School Journal, 93(3), 305–321).

❖ **Evidence suggests that students served in smaller instructional groups have improved performance and achievement. Smaller size instructional groups allow more opportunities to practice verbal communication. Communication skills appear to be positively influenced by small treatment group size.**

- American Speech-Language-Hearing Association. (2002). A workload analysis approach for establishing speech-language caseload standards in the schools. Technical report. Rockville, MD.
- McCabe, J., Jenkins, J., Mills, P., Dale, P., Cole, K., & Pepler, L. (1996). Effects of play group variables on language use by preschool children with disabilities. Journal of Early Intervention, 20(4), 329–340.

### School Counselor Services

Professional school counselors are responsible for developing comprehensive school counseling programs that promote and enhance student learning. Above all, school counselors are student advocates who work cooperatively with other individuals and organizations to promote the development of children, youth, and families in their communities. School counselors, as members of the educational team, consult and collaborate with teachers, administrators, and families to assist students to be successful academically, vocationally, and personally.

❖ **Career development strategies that are implemented by school counselors serve to prevent school drop out.**

- Herring, R. D. (1998). Career Counseling in Schools: Multicultural and Developmental Perspectives.

❖ **School counseling practices improve social skills of students, particularly those who are at risk. Social skills training also has a positive effect on children with learning disabilities.**

- Whiston, S.C., & Sexton, T. L. (1998). A review of school counseling outcome research: Implications for practice. Journal of Counseling and Development, 76, 412-425.

❖ **Comprehensive guidance programs have a significant impact on academic achievement and act as a “central contributing factor to student academic success.”**

- Lapan, Gysbers & Sun. (1997). The impact of more fully implemented guidance programs on the school experiences of students: A statewide evaluation study.
- Otwell, P. S., & Mullis, F. (1997). Academic achievement and counselor accountability. Elementary School Guidance and Counseling, 31, 343-348.

❖ **School counselors play a significant role in the career planning of high school students. Studies show that career planning interventions by school counselors have a positive effect on students’ career development/career plans and that services are effective for a wide range of students, including children with learning disabilities and minorities.**

- Whiston, S.C., & Sexton, T. L. (1998). A review of school counseling outcome research: Implications for practice. Journal of Counseling and Development, 76, 412-425.

❖ **Career development programs and interventions by school counselors have been found to have a positive effect on the career goals, career planning skills, and attendance of students.**

- Herring, R. D. (1998). Career Counseling in Schools: Multicultural and Developmental Perspectives.
- ❖ **Career development programs promote student academic achievement, career development, and more supportive school climates.**
  - Herring, R. D. (1998). Career Counseling in Schools: Multicultural and Developmental Perspectives.
- ❖ **School counselors can help students develop a “college mindset” to consider post-high school education options.**
  - Fallon (1997). The school counselor’s role in first generations students’ college plans. The School Counselor, 44, 384-393.
- ❖ **School counselors are also instrumental in the school to work transition.**
  - Blustein, D., Phillips, S., Jobin-Davis, K., Finkelberg, S., & Roarke, A. (1997). A theory-building investigation of the school-to-work transition. The Counseling Psychologist, 25, 364-402.

### **School Social Work Services**

School social workers provide direct mental health services to students, including one to one counseling, group work, classroom presentations, crisis intervention, and assessment. School social workers work as part of a multidisciplinary team in providing special education services and determining eligibility for special education and related services. They work closely with other school personnel and consult with individual teachers and groups of teachers on issues related to behavior management, classroom management, and special concerns about individual students.

- ❖ **School social workers help students succeed in school by increasing the connection between the student’s family and school personnel. Family outreach and case management services provided by school social workers are associated with positive academic progress for students in school.**
  - Bowen, N. K. (1999). A role for school social workers in promoting student success through school-family partnerships. Social Work in Education, 21, (1), p 34-47.
  - Henderson, A. T., & Berla, N. (Eds.). (1994). A new generation of evidence: The family is critical to student achievement. Washington, DC: National Committee for Citizens in Education.
  - Kellaghan, T., Sloane, K., Alvarez, B., & Bloom, B.S. (1993). The home environment and school learning: Promoting parental involvement in the education of children. San Francisco: Jossey-Bass.
- ❖ **School social work services can be cost effective in the reduction of problem behaviors and school exclusion.**
  - Bagley, C. & Pritchard, C. (1998). The reduction of problem behaviors and school exclusion in at-risk youth: an experimental study of school social work with cost-benefit analyses. Child and Family Social Work, 3, 219-226.
- ❖ **The combination of case management and the task-centered approach is an effective intervention school social workers use to reduce school failure.**
  - Bailey-Dempsey, C. & Reid, W. (1996). Intervention design and development: A case study. Research on Social Work Practice, 6, (2), p. 208-228.
- ❖ **School social workers initiate programs to help children develop non-violent problem solving skills.**

- Butcher, D. A. (1999). Enhancing social skills through school social work interventions during recess: gender differences. Social Work in Education, 21, (4), p. 249-262.
- ❖ **Project Peace: A Safe Schools Skills Training Program for Adolescents involving school-wide violence prevention activities and cognitive-behavioral training increased prosocial attitudes, the sense of safety in the school environment and reduced violent behavior on school grounds.**
  - De Anda, D. (1999). Project peace: The evaluation of a skill-based violence prevention program for high school adolescents. Social Work in Education, 21, (3), p. 137-147.
- ❖ **A cognitive-behavioral approach resulted in better anger management skills and reduced school violence with male students in a day treatment program.**
  - Whitfield, Gary (1999). Validating school social work: An evaluation of a cognitive-behavioral approach to reduce school violence. Research on Social Work Practice, 9, (4) p. 399-246.
- ❖ **Continuous and comprehensive school-wide programs that educate students, parents and school personnel about communication and conflict-resolution skills can be effective in reducing violent behavior.**
  - Woody, D. (2001). A Comprehensive School-Based Conflict-Resolution Model. Children in Schools, 23, (2), p. 115-119.
- ❖ **Bullying and victimization were significantly decreased (50% reduction in the amount of bullying and a decline in other antisocial behaviors) with a program involving 42 schools that educated students, parents and school staff about the problem and provided suggestions for counteracting or preventing it.**
  - Olweus, D. (1992). Bully/victim problems among school children: Basic facts and effects of a school-based intervention program. In D.J. Pepler & K.H. Rubin (Eds.), *The Development and Treatment of Childhood Aggression* (pp.411-448). Hillsdale, NJ: Lawrence Erlbaum.
- ❖ **The presence of a school social worker at Individual Family Service Plan meetings resulted in more family assessment and family-centered data on the Individual Family Service Plan.**
  - Sabatino, C. A. (2001). Family-Centered Sections of the IFSP and School Social Work Participation, Children & Schools, 23, 4, p. 241-252.

September 2005

NAPSO Co-Chairs: Chris Campbell, Myrna Mandlawitz, & Neil Snyder  
 444 N. Capitol Street, N.W. Suite 715, Washington, DC 20001  
 Phone/FAX (202) 686-1637 ~ Email: mandlawitz@verizon.net